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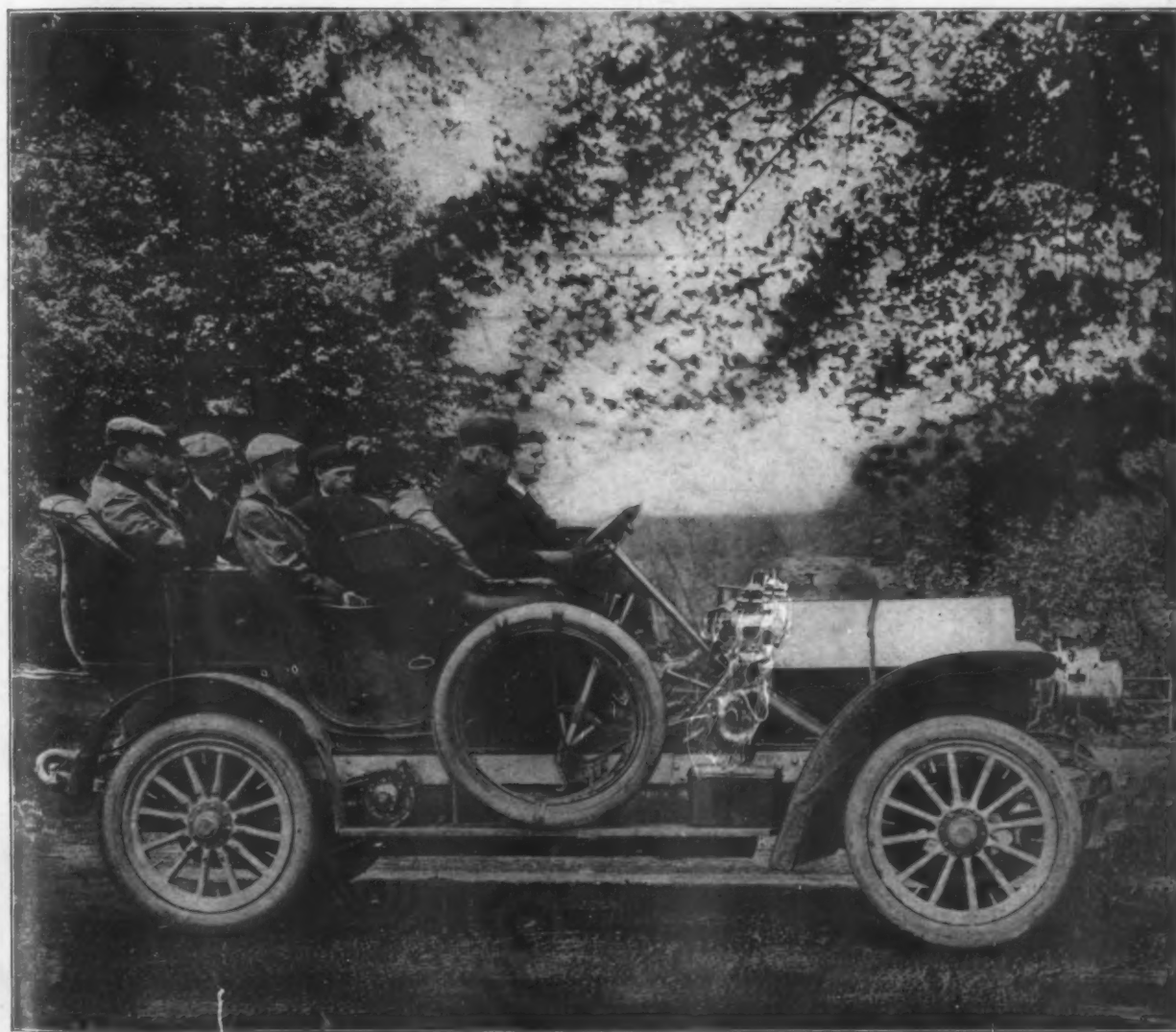
THE

SEPTEMBER, 1906

AUTOMOBILE MAGAZINE

Published by THE AUTOMOBILE PRESS
ANGUS SINCLAIR, Editor
136 Liberty Street, New York

MONTHLY
Price, 20 Cents



SIGHT SEEING PARTY OVER THE HILLS AND FAR AWAY

Glidden 75% Diamond

A Perfect Score in the Most Important
American Touring Event of the Year

134 Diamond Wrapped Tread Tires started in the Glidden Tour, *twice as many* as any other make.

This showed the tires' popularity.

Not one Diamond Tire developed rim cutting, separation or any other defect. These were all *perfect tires*.

75% of the Diamond Tires reached Bretton Woods with the air put in them at Buffalo—*not having been touched*.

The total mileage of Diamond Tires in the Glidden Tour was 120,000 miles.

A car having much tire trouble could make a perfect score under the Glidden rules.

Therefore We Prefer to Discuss the Tire

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copies of "ST. LOUIS" integral construction which you see on every hand. Other makers knew which car was giving the best satisfaction, and with keen perception copied (as far as they dared) the simple combined motor and transmission that has with other features placed the "ST. LOUIS" name in the position it occupies to-day. Catalogs free.

ST. LOUIS MOTOR CAR CO.

PEORIA, ILL.

"St. Louis"

TYPE XVI

WHEN buying a car it behooves the purchaser to look around well, with intelligent discrimination, and know whether he is buying a car which will be a lasting pleasure or a source of constant expense and annoyance.

Whether or not the

"Rigs that Run"

have been builded wisely is shown by the numerous

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Travels of Charles J. Glidden

By Angus Sinclair

There is no personage so conspicuously before the public eye to-day as Charles J. Glidden, the famed world's tourist and the donor of the magnificent

trophy which the leading automobilists of this continent have been striving to win. We seize this occasion to put before our readers some pictures taken by

Mr. Glidden in the countries which he visited in the course of his latest foreign tour.

When he was in Yokohama, Japan, in May last, Mr. Glidden had toured a distance of 33,600 miles in 35 countries. To perform that tremendous feat he motor-



RUINS OF KENILWORTH CASTLE, ENGLAND, THE OLD ROYAL RESIDENCE OF THE SAXON KINGS AND THE THEATER OF MANY CELEBRATED EVENTS IN ENGLISH HISTORY. IS THE PRINCIPAL SCENE OF SCOTT'S CELEBRATED NOVEL KENILWORTH

ed 271 days, twice circling the globe. In one of these tours he crossed the Arctic Circle in Sweden, going the farthest north that an automobile had ever traveled. In the course of another tour in New Zealand he passed over the most southerly road in the world. Another unparalleled feat performed by this enterprising automobilist was running with a specially equipped machine on a railroad track from Minneapolis to Vancouver, a distance of 1,976 miles.

Mr. Glidden traveled by sea 44,760 miles in 149 days. The total journey by automobile and steamships was 78,360 miles, performed in 420 days.

Outside of the United States, the country that Mr. Glidden made the greatest mileage over was France, 4,565 miles, with India, 4,345 miles, a close second. Among other countries where he made long-reaching mileage were England, 2,639; Australia, including Tas-

and that the people as a race are the most treacherous and unreliable human beings he had ever encountered. He says that there is a veneer of civilization in the maritime towns, but that inland they are utter savages and are altogether a bad lot, that are certain to give great trouble to the United States and other countries having interest in the Orient.

This opinion agrees very closely with the views held by Mr. Fred A. McKenzie, author of *From Tokyo to Tiflis*, a most observing traveler and a member of the editorial staff of the *London Daily Mail*. The people with the gift of seeing things who have visited Japan and come in intimate connection with its people, say that the Yellow Peril is certain to cost western civilization no end of blood and treasure.

Among the countries or states visited by Mr. Glidden there were places that very few of our people have ever heard

the inhabitants of Europe had not risen above the grade of swineherds. Mr. Glidden merely crossed the frontier of Annam, but he passed the portals of a land that very few of our people have seen or heard about.

Another terra incognita which Mr. Glidden saw was Bajour in India.

A most attractive part of Mr. Glidden's ramblings was the going away from the beaten track of travel, as was done in the strange countries mentioned, and in Burmah, Ceylon, Cochin China, Java, Fiji, etc. When the story of these travels is published, as they will be some day, it will make a book that every person of inquiring mind will want to read.

It has been recently decided by the highest court of the German empire that an automobilist when running at a reasonable rate of speed is not responsible if a horse is affrighted by his car. The



APPROACHING GREAT DAGOBA, BURMAH
(Travels of Charles J. Glidden)



A MAN OF BURMAH
(Travels of Charles J. Glidden)

mania, 2,109 miles; Germany, 1,546; Sweden, 1,540; Ireland, 1,510; Ceylon, 1,334; Java, 1,250; New Zealand, 1,145; Japan, 1,122; Switzerland, 1,097; and Burmah, 509 miles.

An examination of these figures, with the help of an atlas, will show that Mr. Glidden's peregrinations were of a very comprehensive character, and did not represent long, straight journeys. The work of providing the necessary supplies was done so systematically that practically no delay was experienced waiting for the power medium.

Mr. Glidden is a very keen observer of people and things, and gives remarkably interesting talks about the people and countries he had become acquainted with. Although he had been in several countries where civilization was hardly reached, he says that Japan is the most barbarous country that he had found,

about. Afridi, which he traversed for 40 miles, suggests some part of Africa, but it is not. Afridi is part of Afghanistan, on the northwest India border, near the famous Khyber Pass. The people are believed to represent the founders of the Aryan race, that gave the world the nation building element of the human race. What a fertile field of study this must be for students of anthropology.

Then there was Annam, one of the strange countries that is merely a name to us, yet it is larger than Germany, and contains over 15,000,000 inhabitants. It was important enough to tempt conquest by the Chinese, who conquered it 214 years before the beginning of our era. Although Annam is hardly vouchsafed mention in our school geographies, it is a rich agricultural country that had attained some refinement when

case was one in which the horse had thrown his vehicle, occupied by the complainant, into a ditch. A lower court recognized a claim for damages as just, but was shown that the automobile was running at only about the rate of seven and a half miles an hour and that the horse had shied. The court said that if the use of automobiles was not to be completely prevented, certain necessary accompaniments of their operation at a reasonable speed would have to be permitted. Among these was the accompaniment of noise.

An automobile reporter, present at a late beach race meet, queried his paper regarding a dispatch and received the reply, "Don't send hydrophobia story." The dispatch repeated back made it "motorphobia," but the reporter got the laugh before the repetition came.

Resilient Wheels

Resilient driving wheels were used to a considerable extent on locomotives in the United States before the durable Bessemer steel rail was introduced, and they did very good service in softening the blows on the fragile iron rail. It



DAGOBA, BURMAH. (All Gilt)
(Travels of Charles J. Glidden)

looks as if the freight automobile was a good subject for an invention of this kind, but the few trials made with resilient wheels have not been encouraging.

Reports from France on the contest for resilient, or spring wheels, shod with solid tires, are to the effect that the results were disappointing. The wheels competing were designed to do away with the use of pneumatic tires on commercial motor vehicles, but their showing appears to be a substantial vindication of the pneumatic. The test extended over eight days, the course being from Paris to Nice and return, 1,338 miles. Of the ten cars that started, only three finished. The Soleil, Edmund Levy and Garchey devices were the three to finish. According to the rules of the competition, no award was to be made if an average speed of 18.6 miles per hour for the entire trial—1,338 miles—was passed. The three cars which finished went faster than the average; the car with the Soleil wheels averaging 19.1 miles an hour; the car with the Edmund Levy wheels, 23.3 miles an hour and the one with the Garchey wheels 25.3 miles an hour.

Edward Russell Thomas displayed confidence in American automobiles when he purchased for his private use a Thomas Flyer. The confidence of Mr. Thomas has evidently inspired his relatives, for Mr. H. F. Thomas has purchased a Thomas Flyer for himself and another for his father.

Automobiles Crowding Out the Camel

While the authorities of such towns as Philadelphia do all in their power to put restrictions upon automobiles, whose owners live outside of the sleepy city, all other seats of civilization are encouraging the use of the horseless carriage. Even Egypt, whose people cling to their ancient usages, is beginning to welcome the automobile.

Consul General L. M. Iddings reports from Cairo that Egypt is a poor country for automobiles, but prospects for their use are better. He writes:

They can be used now only for a few miles in and about Alexandria and Cairo. There is no road proper from

Alexandria to Cairo, only camel paths. At Cairo the longest drive is eight miles out to the Pyramids and four or five miles in the other direction to Abbassiah. The trip has been made to Ismailia, but the road is terrible. However, many automobiles are seen in both cities, and it is asserted that a large garage will be constructed in Cairo next winter.

The government also will use automobiles in the police inspection service in the desert region lying between Edfur and the Red sea—that is the gold mining country which is now being considerably exploited. The desert offers almost natural roads, and it is estimated that it will cost only from \$5 to \$10 per mile to make them perfect. The experiment has succeeded well so far, and police inspection, formerly made on camels and consuming for each trip six weeks, can now be made in two weeks. The main obstacle the machines encounter is the drifting sand and the heat.

There are two agencies in Cairo for selling automobiles and two in Alexandria. Machines are registered in Cairo to the number of 175 and 66 in Alexandria. There is an automobile omnibus company in Cairo with a capital of \$500,000. At present four automobiles are running and eleven more will be put on soon.

One Farmer's Enterprise

It is ridiculous to think of the sympathy that the poor farmer receives from other people on account of the supposed hardship of his lot. In reality the simple farmer looks after his own interests as shrewdly as any member of the community, and the average granger is not above indulging in sharp practice when he can do so with impunity.

The story is recent of a farmer near Meadville, who has solved the problem of making an honest dollar without risk or much labor out of the automobile drivers who pass by his farm.

The road passing his place is a long, steep hill, the kind of slippery clay which, when wet, makes a smooth surface, over which the broad rubber tires slide without moving forward. A water trough half way up the hill and in one of the steepest spots solved the problem for the farmer, who formerly sat on the fence and watched the cars go by.

By means of several ditches across the road the farmer found that he could water a section of the road so that it was impassable for rubber tires and the surface of the road did the



REST HOUSE (COUNTRY HOTEL), BURMAH
(Travels of Charles J. Glidden)

rest. The plan was tried and the first machine which came by stuck fast in spite of all its driver could do. At the start of the game the farmer sat on the fence and chuckled as the cars

chugged and buzzed, helpless as a fly in the molasses jug, then an idea struck him. There were three cars in the grip of the mud by that time, all anxious to get on and all of the parties looked like they might have ready money concealed about their clothing from which they could be separated.

Then the honest farmer tumbled off the fence and headed for the barn, harnessed up old Dobbin and Buck and came back; he was hailed with joy by the helpless motorists and a bargain was soon struck, the machines were hauled past the spot and the farmer sent his team back to the barn and once more sought his seat on the fence, but this time he had \$10 salted away in his trousers pocket and a good thing in sight for the summer. And he has kept it up.

An Enterprising Bonaface

John Anderson, of the Mt. Washington Hotel, is a hustler for good

destination of every annual tour. But road building alone is not the forte of Mr. Anderson, for he labors quite as hard among the residents of the district to create sentiment in favor of automobiles. As a consequence the farming community welcomes the motorist every year and every man who tills the soil and every hotel keeper and store keeper is a friend of the man who motors through the district. Touring in the White Mountains is a pleasure and visitors to that section invariably return. Years ago an automobile was a curiosity, but to-day they are quite ordinary and are welcomed, not condemned, by other users of the road, who realize that their coming has done much to aid in creating a great interest in good roads and in the upbuilding of the roads. The example of Mr. Anderson has been contagious and scores of other hotel keepers have joined him in working upon the highways. Were more men who preach

standing on an end. The occupants screamed as they were thrown forward in their seats. The wire swayed and finally gave way.

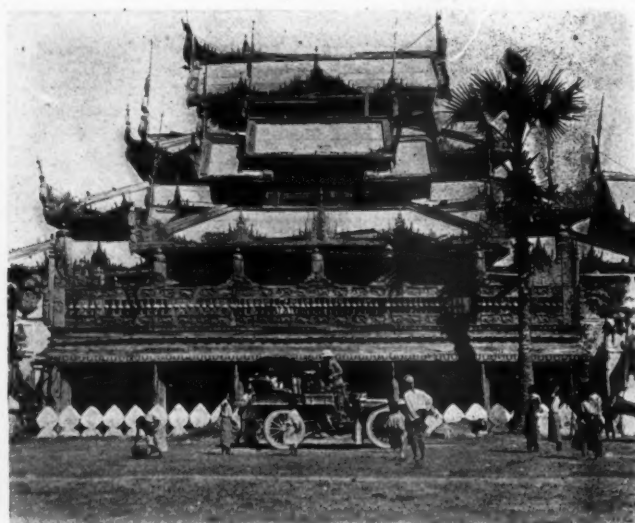
Fearing the wire-stretching business might seriously hurt some of the autoists citizens secured a lot of barbed wire which was laid flat on the ground back and forth across the street.

When the wheels of a flying whizz cart came in contact with the business ends of the barbed wire, much dust was stirred up by escaping air from the tires. Several cars were thus laid up for repairs.

Complaints went in thick and fast to Chief of Police Donahue, and he ordered an officer sent to the scene with a view of apprehending the wire manipulators, but when the officer reached the spot it was as quiet as a graveyard with the exception of an auto or two which was creeping homeward with a runner ahead looking for barbed wire.



TEMPLE IN BURMAH
(Travels of Charles J. Glidden)



MANDALAY, BURMAH
(Travels of Charles J. Glidden)

roads. A friend recently stopped while touring in the White Mountains, to watch a gang of Italians at work on the roads and while stopped was surprised to see one of the party drop work to approach and speak to him. It was John Anderson in working clothes and laboring with men paid \$1.50 per day, just as an example. Mr. Anderson works all day and then goes back to Bretton Woods to work at night, replying to his immense correspondence. He says that the hard labor of the day is relaxation and vacation, and that his labor in conjunction with the hired men pushes the work. Mr. Anderson worked hard for the successful construction of roads last year and for many previous years in the White Mountains and his labor has resulted in making this district a favorite with tourists and the ultimate

to practice what they preach the roads of other portions of the country would vie with those in the White Mountain district.

Barbed Wire for Auto Racers

The people of Omaha have been annoyed by reckless drivers of automobiles tearing through the streets, especially of the suburbs, at dangerous speed. The drivers paid no attention to the law, so some residents determined one evening to protect themselves.

Early one evening a strong wire was strung across one of the leading thoroughfares a few blocks ahead of an approaching "chugger." When the auto and wire met, the big car, filled with a party of merrymakers, came near

The Automobilist Who Neither Sees Nor Hears

People fond of automobiles in the proper spirit derive much of the enjoyment from being out of doors in the lap of Nature. To enhance the pleasure of passing through attractive scenery one ought to cultivate the acquaintance of the diverse objects that force themselves upon every one having eyes to see and ears to hear. How greatly it enhances the pleasure of a tour to be able to claim acquaintance with the trees and flowers that come within the vision. To the cultivated person every tree and flower is regarded as an old acquaintance, some of them rarely met, others seen daily, but ever a welcome sight.

Then the animate voices of the woods and of the fields give sweet

music to the appreciative ear, waking up melodies that make a deliberate journey a continual source of joy.

Pleasure derived in that fashion is, however, not for even the average automobilist. He pounds along with the solitary idea of passing over as many miles as possible, eyes and ears being

called a messenger boy, gave him a quarter extra, and told him to tell the editor that he came right from Tonawanda. Then we started playing again. The boy came in to say that it was spreading and we looked from the roof. It was even so, and knowing of the many homes of Italians

located in the line of the fire I wrote more 'add story' matter and it dealt with the terrible scenes at the fire, the Italians fighting for their lives and so on. The second messenger boy I instructed also, but he returned to inform me that the editor did not want the story, as the fire was at a point twenty miles beyond Tonawanda and that it was a barn which was burning. I did not go back to the paper but

years afterward I had the extreme pleasure of meeting that editor and we shook hands on it and laughed about the incident. I afterwards came East and here I am." Tom Moore's faking at Buffalo added one more to the New York list of cracking good fellows whose stories add much to the pleasure of a day's visit in automobile row.

May Motor Over the Simplon

At length, and after years of agitation, both favorable and unfavorable, it has been decided to throw open the famous Simplon Pass, in the Swiss Alps, to automobilists. Recently a delegation of the Swiss Automobile Club traversed the pass in a body, occupying seven touring cars, and, accompanied by certain officials of the State, made a careful survey of the ground. Following a banquet held at Simplon village, the following regulations were decided upon:

"Only duly authorized chauffeurs holding permits will be allowed to make the journey.

"No crossing of the pass by night is to be allowed.

"Before traversing the pass, notification must be made to the gendarmerie of Brigue, on the Swiss side, or to the gendarmerie of Gon, on the Italian side, who will give applicants a permit, on which the rules and conditions are printed.

"No automobile will be allowed to cross the Simplon in less than four hours and a half. Speed will be checked by officials at places on the route.

"Automobiles will be allowed to cross the pass in June and September, excepting Thursdays, Saturdays and Mondays, and during July and August every day except Thursdays.

"Automobiles meeting carts or carriages must take the outside."

Hit the Wrong Automobilist

The saying that it makes a difference whose ox is gored was well illustrated by an incident that happened in New York within the month. One of the favorite amusements of the New York gamin is throwing deceased rats, decayed fruits, odorous eggs and other unsavory missiles at people riding in automobiles. The police seem to enjoy that species of fun, and seldom interfere with the amusement of the youngsters.

One day, however, one of these sportive youths made a melancholy mis-



ON THE ROAD TO THE SHAN STATES, BURMAH
(Travels of Charles J. Glidden)

insensible to all externals. Many automobilists would derive much more enjoyment from riding the switchbacks of popular pleasure grounds than they do in rushing over the country, and most of them would see just as much.

The actions of many automobilists show as little appreciation of things seen as the man who visited Niagara Falls and saw nothing wonderful about water that obeyed the laws of nature and fell over a precipice. "If the water was shooting upwards," he remarked, "it would be something to marvel about."

Reporter Got Deceived

Tom Moore, the energetic and successful publicity man of the Decauville Automobile Company, was once a newspaper man. It is from the press workers of reality that the real press workers who secure the best publicity come, and Mr. Moore has "come" with a vengeance. This is the way he tells it: "I was in Buffalo and working on the Express. We had a jolly party of good fellows, who were accustomed to meet at night to play poker. I was with them one night when a colored boy came rushing in to inform us that from the roof just above our head we could see the car barns burning at Tonawanda. We saw and then I sat down and, being familiar with the ground, I spun a fearfully realistic yarn of the burning of those barns. I



MARKET, COCHIN CHINA
(Travels of Charles J. Glidden)

take for which he received prompt punishment. Seeing a portly gentleman of dignified mien guiding an automobile along one of the crowded thoroughfares, a youth threw a decayed tomato which struck the automobilist square on the mouth. The latter organ not being

open, the tomato went to pieces, causing an unsightly mess. The victim happened to be Police Commissioner Waldo, who took prompt measures, as became a minion of the law. He pursued his assailant and caught him in an alley. It is needless to say that the tomato thrower was promptly locked up and punished as an example to other evil-doers.

Christie's Idea of Rewarding Racing Drivers

Walter Christie, manufacturer of revolving turrets and successful racing cars of the front driven type, is an entrant once more for the Vanderbilt race and will drive himself. Mr. Christie believes firmly that the entrants for any race between American cars, the makers of cars and tires, should make up a pool of money to go to the successful driver. Both Mr. Christie and others believe that it would be possible then to secure first-

law regulating the use of automobiles in the District of Columbia, President Roosevelt having approved the measure. Under the new law automobiles are limited to 12 miles an hour between intersecting streets, 8 miles crossing streets, 6 miles around corners, 4 miles on certain of the downtown streets, 15 miles through public parks, 20 miles outside the city limits, 12 miles when meeting or passing any other vehicle, and cars must be brought to a full stop whenever the driver of a horse-drawn vehicle signals by raising his hand. Penalties for violations are as follows: First offence, not less than \$5 nor more than \$50; second offence within one year, not less than \$10 nor more than \$100, or imprisonment for not less than five days nor more than thirty days, at the discretion of the Court; third offence within one year, and for all subsequent offences, not less than \$50 fine nor more than \$250; and imprisonment in workhouse for

scorching and have rules for disciplining members for violating the speed laws, but we have yet to learn of a case where punishment was administered. As long as this state of affairs continues, public opinion will be kept keyed up to the support of laws calculated to restrain dangerous speeding of automobiles.

A Strong Car

"I'm going to dispose of my car at once," said a man who entered the New York branch of the Packard Motor Car Co. not very long ago. Pressed for the reason for so peculiar a decision he said "Why this car of mine is not as strong as a street car and it will not bump one at full speed and come away as did the car without a break." He was pressed to explain and drove the car into the branch to have a few minor breaks repaired. There was nothing so very much wrong yet this car had struck a street



WATCHING THE ANTICS OF A LARGE PYTHON, CEYLON
(Travels of Charles J. Glidden)



WILD MAN, ANNAM
(Travels of Charles J. Glidden)

class men to operate cars and to take the risk. "I found it out of the question myself," said Mr. Christie, "to pay the figures demanded by good men to drive my car and I cannot blame the drivers for there is little in it for a driver. I cannot afford to give a man \$5,000 or more after paying for my car, and others will not do so. The mechanics who accompany the drivers should also share in the prize money. I will join with others in making up a handsome purse to reward the successful driver and to make the taking of the risk worth while."

Slow Going Automobiles in Washington

One of the last things Congress did before its adjournment was to pass a

not less than thirty days nor more than six months.

Breaking Speed Records

From almost every State of the Union we receive reports of speed records being broken. In nearly all cases of that kind the report means that the laws regulating the speed of automobiles have been violated. The reckless defiance of law is lamentable, but the boasting of their wanton transgressions by automobilists outrages the sentiment of the non-racing community. The boasting about reckless runs made over in New Jersey helped to give Freylinghuysen the support that enabled him to carry his infamous laws through the Legislature.

Some automobile clubs deprecate

car at full speed and head on and had been simply shoved out of the road. This speaks wonders for the workmanship upon the cars of to-day, when thousands of parts united are so perfect that they will simply resist every strain and stand for a head-on collision such as this gentleman described.

A non-collapsible air rubber tire and metallic protector has recently been invented by Mrs. Thirza Bailey Chenoweth, of Baltimore, formerly of New York City. The invention consists of an air rubber tire, containing gas or air-tight rubber balls. The balls are to prevent the tire from collapsing if punctured. Sliding sectional metallic protectors are designed to prevent puncturing.

A Real Palace Car Automobile

A \$20,000 touring automobile, one of the two largest private motor cars in the world!

Such a "horseless carriage" left Berks county recently for New York, carrying its owner, E. N. Dickerson, a big New York lawyer, big both in reputation and size. He made the trip from Fleetwood to New York in four and a half hours, without any special exertions at speed.

The running gear of this mammoth auto, a veritable little palace on wheels, was made by the Rochet-Schneider Co., of Paris, a celebrated manufacturer. The costly body was built by the Reading Metal Body Co., of Fleetwood, a concern manufacturing that specialty exclusively and of which James C. Reber is owner. The machine was also assembled and fully

can be taken along to keep it in repair.

This monster auto weighs 200 pounds in excess of two tons. It is over 14 feet in length. The gasoline motor is 80 H. P. The car can go 50 miles an hour or better.

Aluminum Body

The entire body is made of aluminum, $\frac{1}{8}$ of an inch thick. The advantage of this metal over wood is that there is no cracking or warping, and it would come out of a collision with much less damage than would a wooden body. It is fully 300 pounds lighter than the old type. The metal top paints like a bicycle, having a lustre finish. The body is painted a royal blue and the chassis or running gear is azure blue. Powerful lights are in the front.

The interior of the cab with its

roof and a trunk rack is on the rear.

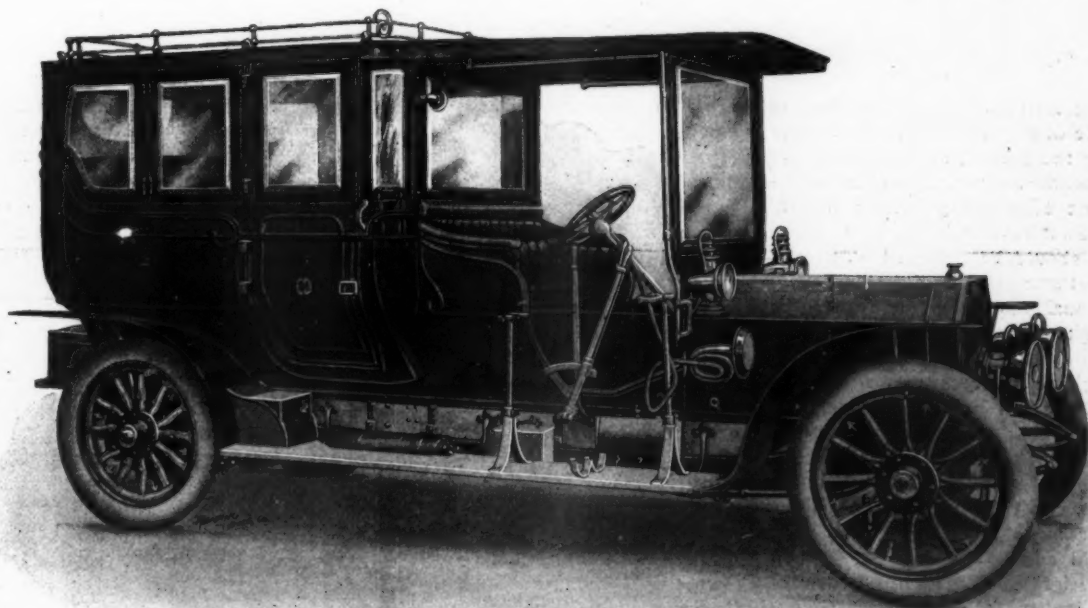
The wheels are artillery pattern. The rear two have six-inch and the front four-inch pneumatic tires. The forged frame spinal is nine inches deep.

The only other car like it in the world is owned by Perkins, of the Mutual Life Insurance Company fame and partner of Pierpont Morgan.

The Reading Metal Body Company was established early in 1905. It located at Fleetwood in August last, and has shipped between 300 and 400 of the metal auto bodies since then. They are sent East and West. Two hundred hands are employed. The concern has loads of orders from auto manufacturers in half a dozen States.

Motoring and Photography

Stored somewhere in the capacious area of the finest touring cars there



A REAL PALACE CAR AUTOMOBILE

equipped at that shop, and is virtually a product of it.

A Wonderful Machine

This auto, the price of which would be sufficient to erect a row of 10 nice workingmen's homes, is wonderful in various respects. First of all, it is a cab; second, it can be made topless; third, the glass sides can be removed and it can be made canopy-shaped, and fourth, an extension top can be put over the rear. The latter is a covering of leather.

The picture shows the car with the cab. The auto has a capacity for 10 persons. Two can sit on the operator's seat; seven in the cab and there is a folding seat on one of the running boards for a mechanic, the man who

French bevel plate glass sides and front, is gorgeously finished and fitted out. All the woodwork is Dutch mahogany. It is upholstered in goat skin with morocco grain. The ceiling is satin and black silk curtains hang at the windows. Three persons can sit on the rear seat, two on the front seat, and there are two revolving chairs. The fixtures include a card table, secretary, sideboard, hat rack, umbrella stand, toilet case, ash trays, clock, mirror, toilet articles, incandescent electric lights, etc. A handsome carpet covers the floor. Speaking tubes and annunciator communicate with the chauffeur. The cab is 62 inches wide, 64 inches high and 96 inches long. There is a place for baggage on the

is very apt to be found a photographic apparatus, but alas! how few realize the full amount of pleasure to be derived from this important adjunct to the best equipment for a trip into any part of the country.

It is to be regretted that a greater number of automobilists are not also devotees of the camera. There could hardly be any combination of pastimes so well designed to supplement each other as motoring and photography. Each has a charm peculiarly its own, and not the least charm of an occasional outing is the photographic record of the various scenes and events which can very readily be made. It often happens that one finds himself for the first time in some out-of-the-

way corner of the country where he may never expect to go again and where, possibly, he did not expect to go at all. The many interesting scenes one passes are readily recorded by this means, and the pleasures of recollection are many times enhanced by the possibility of showing just where this or that incident occurred, a view of the actual spot making all description easier and much of it unnecessary.

A merry party has a pleasant outing by the lakeside or in the mountains. The day has been thoroughly enjoyable to all. What pleasanter acknowledgment of the pleasure of their company could a host offer than a few photographs of the principal views at the place and of the members of the party in various groups and at different enjoyments? An interesting little series could be planned for each occasion, including the start of the run, two or three interesting places passed en route; of the party disembarked at destination; of the ladies spreading luncheon upon the grass in the shade of the trees; of the full party enjoying the spread, and other groups or incidents which cannot be anticipated, but of which a faithful picture is a pleasant reminder.

These should be mounted of course, on something rather different from conventional mountings, and there is opportunity for a wide range in the display of taste in this direction. In selecting the pictures to be sent to any guest it will be natural to choose those in which that particular guest has a prominent place, or some special interest. A tasteful little volume could be easily arranged with half a dozen or more pictures at hand, and one could add or omit as he deemed best, inscriptions or quotations, whether in verse or otherwise. It is very often possible to recall something especially appropriate for a particular scene or group, and such souvenirs are sure to be among those most treasured by their recipients.

For one's own record there are books of any size to be had, and one may be chosen for its convenient size for handling, or its adaptability to the size of picture made by the particular camera. A blank page at the beginning of each series could be used as a title page, to be made up somewhat after the following form:

July...., 1905.

Trip to
Guest of Honor
Invites:
Miss
Miss
Miss
Mr.
Mr.
Mr.

Start: From Automobile Club House, 2:30 P.M.

The following page might well be devoted to a portrait of the guest of honor, and the second to the party in the car ready to start upon the run. Besides the album of personal recollections and the distinction of providing one's guests "favors," which could not possibly be duplicated, there is a lively stimulus to the discovery of the picturesque. There is also the possibility of creating a friendly rivalry between the members of the same club, which will lead to closer acquaintance all around.

The arrangement of monthly, quarterly, half-yearly and yearly competitions, open to members of the club only might constitute an added element of interest; and the occasion of these exhibitions might well be made a "Ladies' Night." Such pictures as win prizes might become the property of the club by the conditions of the contest, and left at the club's quarters. The automobile furnishes an ideal means of reaching places worthy of photographic preservation and the most should be made of the opportunity.

With comparatively little trouble a person may become sufficiently acquainted with the many mysteries of photography to insure very good results. There is a charm about the developing of one's own pictures, but often where large numbers are taken this becomes monotonous. No matter how much out of the way one's journey may go, there are generally to be found some persons who will do this more tedious part of the work, and foolish is the man who neglects to provide the means for so keen a pleasure in future years. On cold winter nights when automobiling ceases to appeal to the general run of its devotees, how delightful an evening can be passed gazing at the reproduction of some summer trip.

An interesting sketch has been written by Lieutenant Peary telling of his trials and tribulations in securing good pictures in Arctic regions. Others have written of the best methods to be pursued in high altitudes, densely wooded or other difficult places. Lieutenant Peary considered a No. 4 Kodak the best for his work and charged it with rolls of one hundred film negatives, those being better for rough travel.

We may not encounter Arctic difficulties with the incident grandeur, but all about us will be found scenes worthy of one's effort. The Adirondacks with ever-shifting light and shadow on "heaven-kissing hill," charm of jewel-like lakes and glory of cloud and sunset effects offer a goodly heritage for the enthusiast, while Vermont's velvety green mountains and

New Hampshire's majestic piles of snow-capped rock are within easy reach of the metropolitan motorist.

On up into Maine's rugged soil, with a run into Canada, finding old-world quaintness and twentieth century scientific achievements side by side. Perhaps a tour into the Evangeline country—or down from Boston into oft-fabled Cape Cod and thence down the coast with its thousands of attractions.

With almost no trouble at all the automobilist of to-day may plan a run into places hitherto considered far distant, being absent from business only a short time. How grateful in later days will he be if, during the time of participation, he has expended the energy to save a record of the trip, which in attractive form is a source of entertainment to himself and all the left-at-homes.

A farmer in Connecticut objects to hard macadamized roads, because, he says, he would need to have his horses shod oftener than if they were walking in mud as usual. He ought to take the roof off his barn and let the rain fill the watering troughs occasionally. It would save labor. He is one of the kind that has Indian meal in his whiskers, and unfurnished apartments to let in his cranium.

It is sometimes asked what becomes of the old tires. They are all doing duty in a humbler way, perhaps, but with a tenacity that promises to be everlasting. Door mats at hotels and houses and railroad depots and even the coverings of the decks of ships and the floors of cars are made of old tires melted and moulded over and over again. Much of the original resiliency is lost, but the old rubber is useful for many articles in which a great degree of elasticity is not essential.

Could Take a Joke

The other day a benevolent old gentleman was stopped in Lake Street, Chicago, by a tramp, who asked for a night's lodging. "Well, look here, my man," the old gentleman said, "what would you say if I offered you work?"

"Bless yer life, sir," came the reply, "I wouldn't mind a bit; I can take a joke same as most people."

Springfield, Mass., seems to carry on a most lucrative business in fining automobilists for exceeding the legal speed. We wonder if the air of that ancient Massachusetts town stimulates men driving automobiles to violate the law, or the small creature, who cannot buy an automobile and is, therefore, envious of his more fortunate brother, is not too much in evidence.

The Mora Four-Cylinder Roadster

We herewith show by three illustrations the Mora roadster car built by the Mora Motor Car Co., of Rochester, N. Y. The car is coming rapidly into public favor through the durability

ment over the rear platform. When desired this compartment can be removed and a Surrey seat attached, thereby doubling the carrying capacity of the car. The Surrey attachment has no side doors. The machine complete

weighs 1,700 pounds and carries 32 by 3½ standard clincher tires.

Water as a Nerve Food

"If nervous women would only drink more water they would not be so nervous," remarked a trained nurse the other day.

"Nearly

every physician will recommend a woman, who is suffering from nervous prostration or nervous exhaustion to drink lots of water between meals, but many women who do not come under a doctor's care would feel better and look better if they

ple by urging his assistants and deputies to perform their work fairly. If a spirit of fairness is displayed by all persons concerned in the execution of the law, most automobile owners in New Jersey will be satisfied.

Auto Bug

The rapidly growing use of the automobile in New York City has developed a strange two-footed creature which is becoming a perfect pest at nearly all of the garages. Mr. E. W. Wridgway, manager of the Peerless Automobile Company's garage in West Forty-first street, took one of them before a city magistrate one day last month.

"What is it?" asked the magistrate.

"It's an auto bug, your honor," said Wridgway.

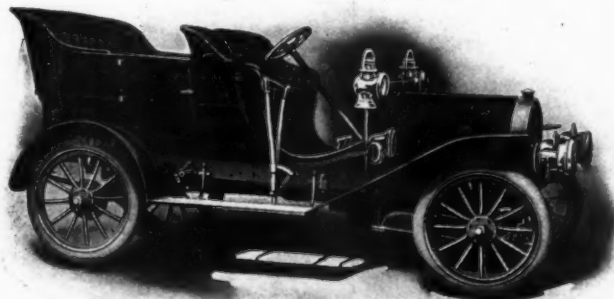
"What's that?" asked the puzzled magistrate.

"The auto bug," continued Wridgway. "This man's got it. It's this way. He wants to ride in automobiles all the time. When one leaves the garage he's on hand and jumps into the seat to ride with the chauffeur until we have to throw him off. If there is only one seat he

climbs upon the lap of the driver and sits down. He's got it bad. He's had it for several days, and something ought to be done for him."

Magistrate Finelite held the bug until he could secure bonds of \$500 for six months.

The Southern Automobile Manufacturing Company of Jacksonville, Fla., have begun building motor cars of a type peculiarly well adapted to the road conditions of Florida. The promoters of this enterprise expect to turn out a car that

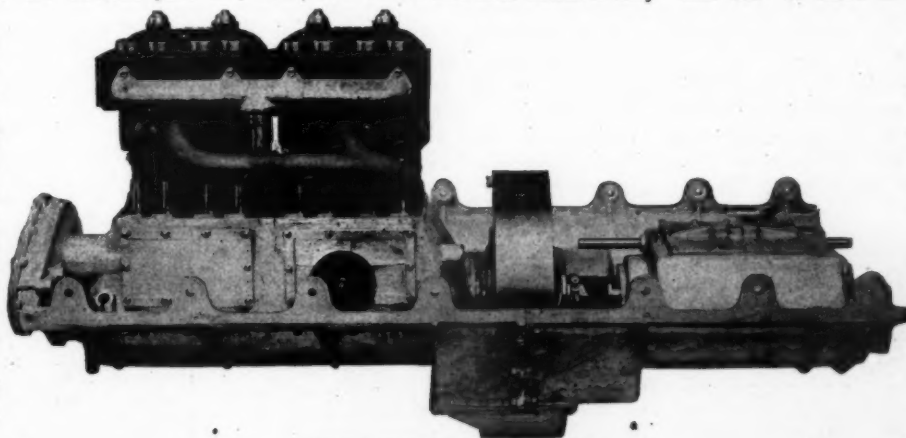


THE MORA FOUR-CYLINDER CAR WITH SURREY BODY

displayed in service, a result that comes from good design, good material and good workmanship. One of the most striking things about the car is the large, two-part, aluminum casting, which forms the bottom part of the engine case, a casing for the fly-wheel the under half of the gearbox and which also serves as a metal support for the motor and gear-set, as well as an apron for the protection of all the car machinery. Looking at the under side of this casting, the strength of it throughout becomes evident.

It is suitably concaved on the upper side to form a chamber for the motor crank-shaft and connecting rod ends at the front; in the center it is decidedly hollowed, forming a casing for the fly-wheel. Because of this excessive concave a cap is used beneath the fly-wheel, the apparent object being provision for replacing this part should it become broken by striking upon any obstruction, it being the lowest part of the casing. To the rear it is further slightly concaved, furnishing a cradle for both shafts of the gearset. Along the center of this concaved portion runs a heavy flange. Cross flanges run from this to the sides of the casting, these flanges taking the form of webs at each side of the concaved portion.

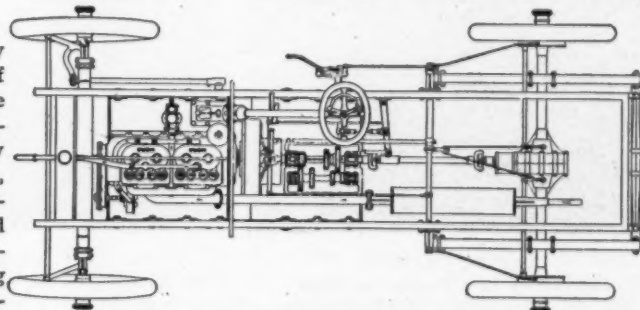
The Mora roadster body is a runabout with slightly arched top to the bonnet, straight dash, partly divided seats and torpedo carrying compart-



MORA MOTOR AND GEARSET

would drink, say, a quart of water in the course of a day. Water is a nerve food. It has a distinctly soothing effect when sipped gradually, as one can test for herself."—Home Chat.

There is likely to be plenty of trouble in the State of New Jersey over the new automobile law, where petty officials are inclined to pride themselves in pushing their new authority to the full limit. The commission in charge of the execution in the new law. Mr. J. B. R. Smith, is, however, showing an excellent exam-



CHASSIS OF THE MORA FOUR-CYLINDER CAR.

will become as famous in the South as the Oldsmobile car became in the North. The price of the runabout is \$400.

Hygienic Limit to Invention

Until motor vehicles have wings, we have heard it said, they will always be an eyesore, an earsore and a nosesore, is the opinion of the London Lancet. While not prepared to accept that view,

wonderful in its power of adapting itself to a new environment, and just as few now look upon the railway, as was formerly the case, as a really offensive invention, so in time to come the present distresses inflicted upon us by mod-

the wings, frequently interrupted the actors' and occasionally fought with them. In 1721 a noble but drunken earl, standing in the wings during a performance of "Macbeth," crossed the stage to talk to a friend. Rich, the manager,



KING EDWARD VII.

E. T. BIRDSALL
Automobile BuilderA. K. RIKER
Celebrated Automobile Designer

at any rate, as a condition of things likely to last, we must admit that the accessories of modern life in general are placing greater and greater strain on the faculties of the individual. His eyes are strained by the intense artificial lights, his ears are worried by the unnecessary din of the streets and his nose is offended by the vaporization of offensive fumes of oil or by the fetid air

ern ingenuity will gradually disappear, partly by the process of adaptation and partly by improvement resulting in mitigation of the kind of evils referred to.

One thing at least may be said, and that is on no account should a modern invention be tolerated, however convenient it may be in one direction, unless it satisfies hygienic requirements.

expostulated with the nobleman for his breach of decorum, and he promptly slapped the manager's face. Thereupon Quin and two of the other actors drew their swords and drove the earl and his friends from the stage. But the gentlemen, not to be defeated, rushed into the boxes, and, cutting and slashing right and left, proceeded to destroy the furniture; they were only stopped from

WALTER CHRISTIE
The Famous Auto Designer and RacerJ. G. COLEMAN
Treas. N. J. Auto and Motor Club, Newark, N. J."EVER READY" F. J. ALVIN
Am. Electric and Novelty Co.

of the "tube." That simpler life appeals to him more than ever which removes him from the maddening sphere of the inventors' activities.

Still, after all, the human machine is

Old Time High Grade Ruffians

Until 1762 the actor played on a stage surrounded by fops and fine gentlemen, "unlick'd cubs of condition," as Cibber terms them. These persons, lolling in

doing further damage by the resolute action of Quin, who, calling the watch to his assistance, arrested the rioters and haled them before the magistrates. A less disastrous instance of these curi-

ous interruptions was that of a gentleman who was so stirred by the beauty of Mrs. Woffington's performance of Cordelia in "King Lear" that he could not refrain from coming on to the stage and embracing her in the sight of the audience.

and donned a kind of uniform and stationed themselves like scarecrows along the taxable highways. They figure it out that as the old mortgage continues to grow and warp the shingles on the old roof, the fellow who can ride in an auto should be

whistle, all of which from the hands of a trained engineer have a message and a meaning to the ear that hears and the head that understands. Some people are more susceptible to sound than others. It was observed in Cuba last spring that the local constabulary had little or no



W. HILLIARD
Will Drive Napier in Vanderbilt Race



BARNEY OLDFIELD
The Champion Racer



MANAGER ARMSTRONG
Bliss Co., Brooklyn, N. Y.

Jersey Justice

New Jersey is an unhappy state to run an automobile in, and Union county is the particular place to stay away from. It is wiser to go by a more circuitous route. Many of the schemes of the village constables show an ingenuity worthy of a better cause. The Elizabeth Journal publishes a story of the special deputies stretch-

"easy graft." The local justice who had not had a case for years past is getting busy. Snivelling through the pressed nose, spectacle-bestrid, he condemns the quaking culprit who is fortunate if he is not both fined and confined before he escapes from the cormorants, who are chuckling over their ill-gotten gains like veritable knights of the road.

control of the swaying, surging crowds, but the horn of the coming car spread consternation among the motley multitude. The chauffeur did what the police failed to do. Like Roderick Dhu:

"One blast upon his bugle horn
Was worth a thousand men!"



C. P. HUNTINGTON
Electric Vehicle Co.



TOM COOPER
Matheson Motor Car Co., New York



RAYMOND HEALY
Healy Leather Tire Co.

ing a rope across a road to intercept a bride and groom who had gone beyond the limit in a new auto. Watches as big as turnips and as old as the hills are used in timing unsuspecting drivers. Some bearded country yokels have actually dropped the plow and forsaken the cabbage patch

The most accomplished chauffeurs are not so liberal in the use of the horn as formerly, and the result is that it is getting to be more regarded. As time passes it may so happen that the public ear will become tuned to the use of the horn, just as railway men get accustomed to the blasts of the locomotive

The Truffault-Hartford Company, 67 Vestry street, New York, are giving away to their friends a pocket case with transparent face, suitable for holding license cards. We acknowledge with thanks receipt of one and advise other automobilists to hurry in their application before the supply is exhausted.

The Canny Scot

A Scotsman went to London for a holiday. Walking along one of the streets he noticed a bald-headed chemist standing at his shop door, and inquired if he had any hair restorer. "Yes, sir," said the chemist; "step inside, please. There's an article I can recommend. I've testimonials from great men who have used it. It makes the hair grow in twenty-four hours." "Aweel," said the Scot, "ye can gie the top o' yer heed a rub wi' it, and I'll look back the morn and see if ye're telling the truth." The chemist returned the bottle on the shelf with disgust, and kicked the errand boy for laughing.

Precious Ballast

The Eastern Railway of Mexico, says a correspondent of the San Francisco Chronicle, will be ballasted with gold ore between Texico and Rio Puerto, a distance of 270 miles. This ballast rock is obtained from the gravel bed adjacent to the new line of the road.

Repeated assays have shown that the ballast runs upward of \$2 in gold to the ton. About 4,500 tons of rock are used to the mile, making the value of the gold \$9,000 to each mile of road, or \$2,430,000 for the 270 miles. The gold values in the rock are not sufficient to make it a mining proposition, but passengers will ride over the most valuable piece of ballasting in the world.

During the past six months over sixty women have been graduated as chauffeurs from an automobile school in the upper west side of New York City. Graduation does not mean that the pupil is merely qualified to steer an automobile along a crowded street and knows enough to start and stop the machine. The graduates have passed through a thorough examination and are competent to take apart and reassemble every part of the machine. The course covers a period of over three months, and there are nearly twice as many already entered for the fall course beginning in September. Nearly all are owners or prospective owners of cars.

The chief was inveigled into making a speech to a crowd of automobilists denouncing certain unfair laws. He became rather heated and was energetic in expressing himself. When he finished a gaunt looking motorist with peculiarly keen expression of countenance, walked up, and, grasping the speaker warmly by the hand, exclaimed, "Man, that was a fine speech you made, but I didn't hear a word because I'm mighty deaf."

The classic valley of Wyoming, in Luzerne county, Pa., is coming notably to the front as an automobile manufacturing center. Last month a new factory

was opened at Forty Fort, a few miles above Wilkes-Barre on the Susquehanna river. It is called the Yeager Automobile Co., and the Yeager touring car and the Yeager commercial trucks will be manufactured there.

"His Automobile or Theirs?"

It is only in fiction that the motor car of to-day invariably breaks down. Those who have grown weary of automobile stories because of this musty plot being always used are recommended to read the complete novel by Elizabeth York Miller, which opens the September Argosy. It is bright, lively, full of incident and interest, and there is not so much as an exploded tire from beginning to end.

A country sexton in England officiated at a funeral clad in a red waistcoat. At the conclusion of the obsequies the vicar gently remonstrated with the old grave digger, saying: "Robert, you should not wear a red waistcoat at a funeral; you hurt the feelings of the mourners." Robert replied, placing his hand on his breast: "Well, what does it matter, sir, so long as the heart is black?"

Omaha is coming to the front in the use of motor cars. In addition to the half dozen special cars that are running on the Union Pacific Railroad, there is now a sight-seeing automobile that is said to be a wonder in its way. It was made by the Karbach Company, and is a model in its line. When the crowd is large, it has rear extensions that rise up tier on tier like the gallery of a theater. Extra cylinders get to work on the crank shaft and away they go. It is said to be very popular.

In order that he may have an officer always with him, several men of Scotland Yard have been trained as chauffeurs for King Edward VII. This is a simplification of matters that is suggestive. So many new inspectors, deputy inspectors, constables, etc., have been appointed in some States to look after automobiles that it would be an economy for the State if they were trained as chauffeurs.

A clever French invention, designed for mounting and illumination on the dashboard of an automobile, is called "Auto-Carte." It will show to the motorist the position of his car on the road map which unfolds at one side, and on the left he has a table of signs to indicate the lay of the land in both directions.

An act of flirting, very successfully followed by certain promoters of automobile manufacturing projects, is to tell the leading men of different localities that they are looking for a factory site

and intend establishing their works at the point where the greatest encouragement is offered. Free land, exemption from taxes and other favors are freely offered.

Live Red Herrings

Glasgow draws a large part of its domestic service from the Highlands, and there are many stories told about the unsophisticated ways of the maidens from the mountain glens.

One of the newcomers to the city was observed by her mistress gazing with astonishment at a vase filled with goldfish.

"These are very pretty fish, Jessie," remarked the mistress.

"They are that whatever," replied the maid; "and I never have seen red herrings alive before."

We have recently seen a variety of notes concerning people who saved the humiliation of getting towed home by using alcohol or kerosene as power mediums in autos. To people who fall into this fix we would whisper, "Be sure to have a sufficient quantity of gasoline to start the engine going. If you try to start it with the other liquids you will spell your efforts by the familiar word 'failure.'"

The average young automobilist is greatly enamored of noise. If he can get hold of any device that will emit unearthly shrieks he is happy, no matter how uncomfortable other people may be under his ear inflictions. Some callow motorists when rushing over country roads never cease sounding their horn as long as any other vehicle is in sight. The tumult enrages everybody subjected to the annoyance and has no small influence in exciting animosity against automobilists.

Awakened by a pounding on his door last night, John Rukke, a farmer, found two men below, who said they had been hauling a hog past the farm and that it had got away and ran into Rukke's barnyard. They asked Rukke to come and help them catch the hog, which he did, and not until morning did he find that he had helped them to catch one of his own hogs and let them haul it off.

With the placing of denatured alcohol on the free list considerable interest is aroused in the possibilities of the use of alcohol for the propulsion of motor vehicles. In many circles it is believed that alcohol will ultimately entirely displace the use of gasoline. It is generally considered that the Bartholomew Company will have Glide cars on the market in 1907 using alcohol in place of gasoline.

General Correspondence

Popularity of European Automobile Tours

Editor AUTOMOBILE MAGAZINE:

The publication and wide sale of the recent book, "Three Men in a Motor Car," by Winthrop E. Scarritt, ex-president of the Automobile Club of America, has been the means of directing the attention of a great many people anew to the pleasures and benefits of automobile touring abroad. One inevitable result of the perusal of this volume—or, better still, the personal experience of some similar trip—is the comparison of roads and facilities abroad with those of our own country, somewhat to the disadvantage of the latter. So much can be said with all due patriotism, for western and central Europe, with a start of many centuries, and a territory small as compared with Uncle Sam's domain, might naturally be expected to have accomplished more in the road building line—particularly as military highways were considered part of the strength and security of past empires.

It would be strange, indeed, if we could not take some useful lessons from our over-sea cousins, and not much to our credit if we did not. Practically all parts of Great Britain and the European Continent are accessible by motor car—frequently this is the easiest and most natural method of travel. But in this comparatively new country of magnificent distances, automobile travel on a large scale is restricted very largely to certain localities and certain sections where good roads have been built and other facilities provided. Of course, no part of the United States can any longer be called "inaccessible" to the automobile, and yet there are large sections where touring, even as known in our eastern and northern States to-day, is practically undeveloped.

European scenery is so varied and beautiful the cities and villages so full of interesting history and picturesqueness, and the various countries with all their differences in manners and customs are so near together, that for an automobile tour no other part of the world can at this time compare with it. As long as this remains so, the American automobilist of wealth and leisure will count a European tour as among his special privileges if not also one of his social duties. In the course of a year thousands of automobilists make extended tours in England, Scotland, France, Germany, the Netherlands, Spain, etc., the more readily undertaken because those who make them are fortified by

the knowledge that the roads will be good throughout, and that a reasonable schedule can be maintained from beginning to the end of the journey.

This is a condition of which we in America are now but dreaming; and fortunate, indeed, will be our grandchildren should they live to see it. Everyone who takes a few weeks' vacation abroad comes back a positive and enthusiastic advocate of good roads, for he gains a realization, as he otherwise could not, that they are already in existence, and that often in poorer countries than our own. He is convinced, too, that the same good thoroughfares can be had here as soon as a majority of the inhabi-

tomobile travel, and their frontier regulations are not as bad as they seem, requiring principally a ready means of personal identification, and at times a cash deposit on the machine, to be returned on proof of taking it out of the country.

A little care and thought before starting out will very largely eliminate these difficulties, and one will come to think no more of them than he does of the anticipated discomforts of the ocean voyage. Once accustomed to the routine which must be gone through by every foreigner journeying much on the Continent, it will be taken as a matter of course. Even with this routine, travel



MICHIGAN'S OFFICIALS ON VACATION IN AN AEROCAR

Governor Warner at the wheel, State Superintendent of Public Instruction Patrick Kelly at his left, State Dairy and Food Commissioner Bird, first in tonneau; Ex-Representative Frank Neal, second; Ex-Senator Waterbury, third. Governor Warner's summer cottage at Cass Lake in the background.

tants demand and are willing to pay for them.

The fancied annoyance of a foreign tongue, anticipation of trouble with the customs, or fear of inability to make necessary repairs on the road, has deterred many who would otherwise have undertaken it, from attempting an automobile trip beyond the seas. But all these things are easier than they seem. English is spoken, or at least understood, almost everywhere on the Continent, and one generation after another of its inhabitants has been cultivating the patronage of the tourist. European governments like individuals, are wide-awake to the business advantage of au-

tomobile travel, and their frontier regulations are not as bad as they seem, requiring principally a ready means of personal identification, and at times a cash deposit on the machine, to be returned on proof of taking it out of the country. A little care and thought before starting out will very largely eliminate these difficulties, and one will come to think no more of them than he does of the anticipated discomforts of the ocean voyage. Once accustomed to the routine which must be gone through by every foreigner journeying much on the Continent, it will be taken as a matter of course. Even with this routine, travel

In France, especially, no effort is

spared among the motorists, who share the reasonable pride of all their countrymen in the advantages and natural beauties of their land, to facilitate touring. Guide books, maps and other helps to the stranger are many and surprisingly accurate. It is a comparatively easy matter for the sojourner to become acquainted with the courses best adapted and most hospitable to the tourist—much more so than it is as yet in our own country. A tour abroad is a practical lesson in mutual helpfulness among automobilists, as much as it is an object lesson in good roads.

This is not a "write up" for Mr. Scarritt's book, but an opportunity which THE AUTOMOBILE MAGAZINE gladly takes to give some accurate impression of the pleasures and benefits of motor travel abroad. We are no worse Americans for acknowledging that we have something to learn yet from the road makers and road menders of older countries; indeed, in most cases we come back better prepared than might otherwise be possible to do our full part as citizens at home. Probably no autoist ever made a European trip in the right way who was not ever afterwards the better for it.

ROBERT BRUCE.

Packard Output Not Sold

Editor AUTOMOBILE MAGAZINE:

It has recently been brought to our attention by several dealers that rumors are being systematically circulated to the effect that the entire 1907 output of the Packard factory is being bought up by a syndicate whose object is to control the market, and because of the great demand which exists for Packard cars, hold them for a premium, and thus realize a very handsome speculative profit.

We desire to at once correct the impression which such a rumor will make, and we hereby go on record to the effect that the entire output of 1907 cars will be sold only through regularly established Packard dealers as in the past. Furthermore, that there will be no dealers added to the Packard selling organization for 1907, because of the fact that the increase of demand in territory where the line is already established is greater even than the increased production of the factory, and feeling as we do, that old dealers, who have done business with us in the past, are entitled to first call upon our product, we are reserving the entire output of 1907 Packards for these old dealers and will be unable to allot any Packards to new dealers.

Notwithstanding this policy, we will be unable to supply the old dealers with as many cars as are needed to meet the demands in their respective territories.

The Packard Motor Car Company will continue to spare no efforts or pains, to the end that Packard cars may be placed in the hands of the individual owner at regular advertised prices without any premiums or bonuses whatsoever, and we believe we have provided a means of effectually preventing any speculative dealing in Packard cars for 1907, either by individuals or syndicates.

PACKARD MOTOR CAR COMPANY.

Editor AUTOMOBILE MAGAZINE:

It appears to us of sufficient importance to call your special attention to the fact that in the just finished Glidden Tour of the perfect score cars the Knox was the only car to carry six passengers throughout the trip. It is unnecessary to say that the additional passenger and his successful transportation evidence a capacity on the part of the car in excess of the other participants. We assume this fact will be considered



ARMORED CAR

by the Awarding Committee, but in the event of its being overlooked by your staff, we take the liberty of bringing it to your attention.

KNOX AUTOMOBILE COMPANY,
G. W. Bennett, Sales Mgr.

Armored Motor Cars

Armored cars appear to be the fashion at present, that here illustrated having been "made in Germany." But similar cars are now considered a necessary adjunct of gold mining in Mexico. The plant of the E. R. Thomas Motor Company, at Buffalo, N. Y., received last month an order for a car of this variety from L. M. Hart of Boston, who is interested in several mines. Then another was sent in from the Western Motor Car Company, at Los Angeles, for an armored car for the Giroux Consolidated Mines Company of that city.

Both the Giroux Company employees and those of the concerns in which Mr.

Hart is interested have had numerous brushes with the Yaquis while transporting gold from the mines to the railroad.

Both cars are to be designed in part by the purchaser, and both are radically different in form, according to the preliminary plans. Mr. Hart's design contemplates the complete protection of the engine and all working parts, as well as the space for the driver, guards and gold, as his car is to be equipped with rapid fire guns. The car for the Giroux Company affords protection for the driver, guards and gold. Harveyized steel is to be used, and a compartment, the size of the complete body of the Thomas "Flyer," with a square top and roof covering, is planned.

Rapid fire guns will not be used, but space is made for four guards and rifle racks. Slits are to be made in the front, sides and rear for the rifles of the guards. The car, despite its weight, is to have a speed sufficient to race it out of rifle range within a few minutes. At the same time it will have enough protection that, should it be surrounded, the guards need not fear a long siege. The entrance to the car is to be through the rear where a double locking steel-clad door is located.

The need of this car has again been demonstrated by the reports received recently, that a family of six Mexicans had been the victims of a Yaqui massacre while returning from the gold country.

Number of Autos

The Auto Directories Company is responsible for the statement that there are 121,396 automobiles registered in twenty-eight States, and of these about 40,000 are practically out of commission.

New York leads with 30,847 registrations; New Jersey, second, with 19,500; Massachusetts, third, with 15,208; Pennsylvania, fourth, with 10,500; Ohio, fifth, with 7,000; California, 6,000; Kentucky has 450; Oregon, 275, and South Dakota, 462.

Home-Made Automobile

Mr. W. Jasperson, a farmer, is creating quite a stir in the vicinity of Rensselaer, Ind., by driving at full speed in an automobile of his own construction. He converted a farm truck wagon to an auto car. An upright gasoline engine furnishes the power and heavy beveled gear wheels give a fixed speed of about 10 miles an hour. At home it drives a threshing mill, cuts wood, and presses hay.

A Clever Constable

Policeman Van Cleaf, of Brooklyn, tried to prove on the witness stand that a Manhattan chauffeur was exceeding the speed limit. The chauffeur was in charge of a sightseeing auto and was on his way back from Coney Island, rumbling along with a full complement of sixteen passengers, when he was arrested near the Williamsburg bridge.

"Are you certain that the prisoner was going at the rate of twenty-two miles an hour?" said the Magistrate.

"Sure thing," said the officer, "I have my tenth of a mile measured off and I had my stop watch on him."

"How many yards are there in a tenth of a mile?" asked the Magistrate suddenly.

The policeman grew red in the face, and said he could not tell. "How many feet?" continued the Magistrate.

The officer mustered courage and blurted out that there was at least two thousand.

"Well," said the Magistrate, doubling back on the calculating constable. "How many yards are there in two thousand feet?" The policeman had forgotten or perhaps he never knew that there are three feet in a yard, so he could not tell, but he volunteered the information that he had chased the auto for several blocks and he was certain that it must have been going at least twenty-two miles an hour.

"How many miles an hour can you ride on your bicycle?" continued the Magistrate.

"Thirty miles," said Van Cleaf unblushingly.

Then Mr. August F. Mack, of 46 Fourth avenue, testified that he had made the automobile, and fifteen miles an hour was its limit.

Breaking the Record

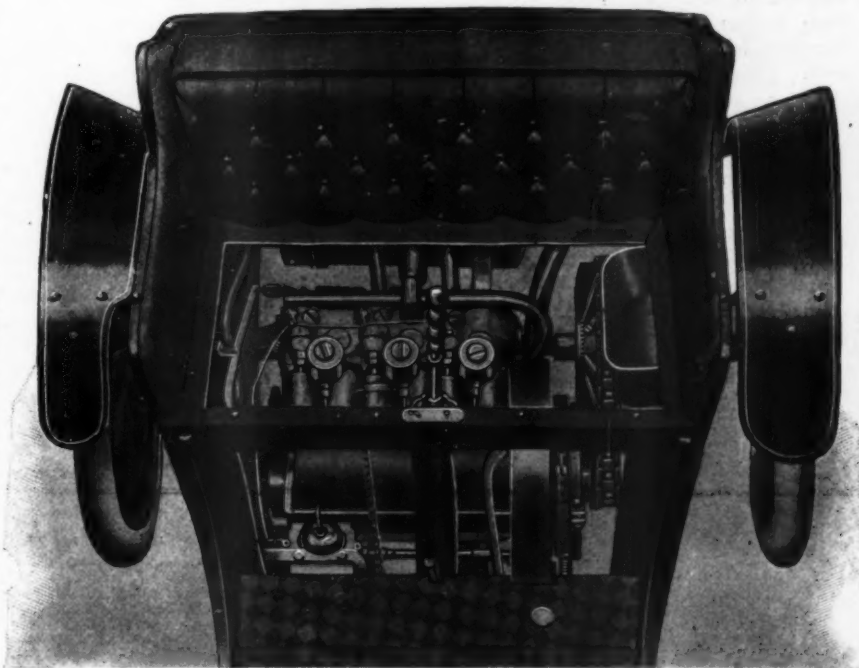
South Amboy was stirred to its innermost depths one day last month when a large auto started up Smith street from the ferry at a terrific pace. The alarm spread to State street that something was coming and in a cloud of dust the cyclonic wonder swept on. At the corner of Smith and State the street was torn up for new paving and the flying car struck a rut and leaped into the air and then headed with renewed vigor for Hobart street where it struck a stone pile and jumped on to the car tracks and then went zig-zagging from curb to curb. Two women in the rear seat shrieked at every narrow escape, while a man wild-eyed and a countenance that spoke volumes of inexpressible anguish clung to the steering wheel like a shipwrecked mariner to a life buoy. Hoarse voices called to him but he sat tranced while the devil wagon ganced on. Chief

of Police Burke and Detective Huff joined in the pursuit and on a recoil from another stone pile they boarded the car and throttled the gasoline and placed the driver under arrest. Recorder Pickersgill ordered the chauffeur, William Green, to be fined \$50. Green blamed the rough roads for losing control of his machine. In the confusion incident to the capture of the driver the shrieking ladies vanished.

The Duryea Car

We hereby show two illustrations of the Duryea Car, made by the Duryea Power Co., Reading, Pa., for which we confess a decided personal predilection. The makers' description says that it comprises a triple motor, a single transmission gear and a single chain

with heads to the rear fills about $\frac{3}{4}$ of the space. A sheet metal crank case cover is instantly removable and permits access to all parts of the motor including crank and cam shaft bearings and piston wrist pins. The spark parts and exhaust valves may be quickly removed. By the side of the fly wheel the transmission gear is placed, which gives two speeds forward and reverse. A strong, short chain conveys the power from the transmission gear to the large sprocket on the rear axle. This sprocket is not in the center but is at the left side of the vehicle, which permits more than 12 in. clearance elsewhere; a feature of value on bad roads. The muffler is shown at the extreme rear and the magneto at the rear of the front floor.



DURYEA PHAETON—BIRD'S-EYE VIEW, CUSHIONS AND PANELS REMOVED

to the rear axle. It has no counter-shafts, the fewest possible number of bearings, the simplest oiling system, natural circulation, the handiest location of the tanks, the proper placing of the weight, the most practical and clean arrangement of the mechanism, and above all the simplest, easiest, safest and handiest controlling devices.

The large cut is a bird's eye view of a Duryea phaeton with seat cushions and front panels removed, everything else being in place. It shows all the mechanism except the water tank behind the seat and the gasoline tank under the front floor. In no other vehicle is the mechanism so easily uncovered, so compactly and accessibly arranged, so well protected from dirt and so easy to inspect.

The triple cylinder motor inclined

The long magneto shaft is driven by a gear inside the fly wheel. A single wire from the magneto to the spark plug without switches or binding screws makes a most simple arrangement.

The controlling handle stands in the center between the riders, equally accessible to either. The reverse pedal is at the heel in the center, the brake lever under the toe. The opening for filling the gasoline tank is just in front of the fly wheel, and the gasoline and air adjustments are at the base of the controlling lever.

The front axle is lightly loaded which causes the vehicle to steer easily and rise over car rails with certainty. All working parts are on top in plain sight, clean and easily removed. The cylinder heads unscrew like pipe plugs. Any part can be removed in a few

minutes, which makes attention easy, repairs few, and service satisfactory and economical.

Defective Tape Line

There is no respect of persons in New Jersey. Senator Dryden and Colonel Kuser were driving out in the Colonel's machine and put on full speed to catch a train to Washington. This was the constable's chance. He had marked off a part of the road and the appearance of an old double-barreled shotgun looking over the fence halted the doughty Colonel and the august Senator. Bonds were forthcoming and when the case was called before Justice Brampton, Mr. C. A. Reed, of Plainfield, N. J., who appeared for the accused, called for the measuring line with which the distance was laid off, and it was found that it had been broken several times and in the mending had been shortened nearly a foot. The timepiece was also produced

	6-cylinder Rolls-Royce	4-cylinder Martini
Hill climbing	445	500
Speed on the track.	491	500
Changing gears	100	90
Fuel Consumption..	48	59
Reliability	993	580
Silence	100	75
Absence of vibration	100	77
	2277	1881

These are taken to show that the six-cylinder advocates have fairly proved their case. They have all along contended that the six-cylinder engine is in advance of the four-cylinder in that it necessitates fewer changes, is more silent, has less vibration and accelerates quicker. It will be seen in the figures that in silence, absence of vibration and speed changes they have all gone decidedly in favor of the six-cylinder type. The honors in fuel consumption and speed tests on hills and on the flat be-

magnesium, \$3.81 and \$7.62 per kilogram; manganese, commercial (94 and 97 per cent.), \$2.75 per pound in New York; molybdenum, commercial, \$4.05 and \$6.68 per kilogram in Germany, and tungsten powder, 88 cents per pound in New York, find employment as individual metal or as alloys for special manufactures. There is an increasing market, however, for the nitrates, especially cerium, \$10 per pound, and thorium, \$4.50 per pound, which are utilized in the manufacture of incandescent gaslight mantles. Radium and polonium, recent discoveries, have a purely speculative value.—Eng. and Mining Journal.

Illegal Rewards

The appellate division of the Supreme Court in Brooklyn, has reversed the lower court by deciding that the district attorney of Suffolk county had no legal right to offer rewards for the arrest of the owners of automobiles exceeding the speed limit. Such rewards can be regarded in no sense as money spent in executing the duties of the attorney's offense.

A Golfer

He was a very bandy-legged golfer playing over the course, and he lingered long and carefully over each stroke. The player behind him got exasperated at his slowness, and drove a ball right through between his legs and well on in front. "That isn't golf," cried the bandy-legged, hotly, turning on the player. "Well, well," was the cool reply, "if it's nae golf it'll dae for croquet."

Still in Doubt

Reporter (trying to learn the particulars of the disturbance next door)—"Who struck him? What does the man himself say about it?"

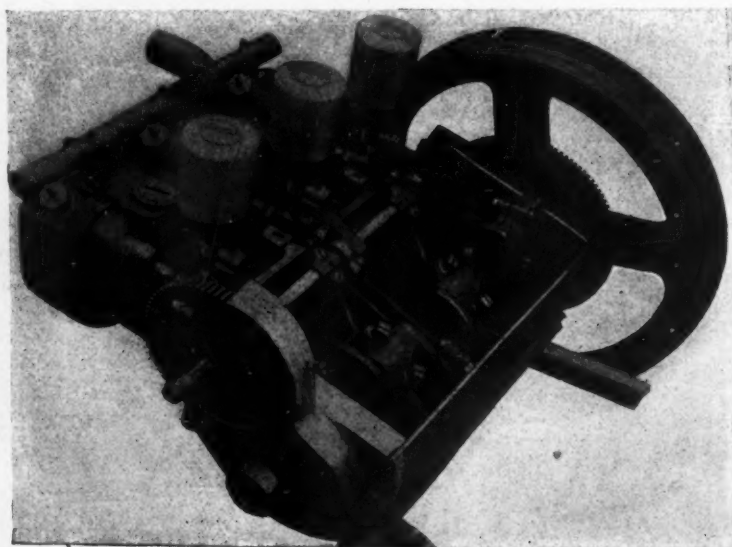
Mrs. Lapsling—"What does he say? Why, he hasn't spoken a word. He was knocked senseless, and the doctors that are working over him haven't been able to restore his animosity yet."

She Learned a Lesson

Talkative Citizen — They've been sparking a long time, but I hear they are going to be married at last.

Automobilist — Well, you see she has been out in the automobile with him a good deal and she has learned to accelerate her sparker.

"My mistake was in not believing what you told me before our marriage," said a wife to her husband. "Indeed! What did I tell you before our marriage that you did not believe?" "You told me that you were not worthy of me."



ENGINE OF DURVEA CAR. COMPLETE WITH UPPER PART OF CASING REMOVED

and it was discovered that there was not two watches in the court alike as to the exact time of the day. The prisoners were dismissed with a caution to start for trains earlier.

Relative Efficiency of 4 and 6 Cylinder Automobiles

An exhaustive test to determine the relative qualities of the six-cylinder and four-cylinder type of cars has just been finished in England. The test, which took account of every factor, was an official one conducted under the auspices of the Automobile Club of Great Britain and proves conclusively that the six-cylinder car is superior in every-day performances.

Following are the figures on which the certificate of the Club was issued:

Cost of Rare Elements

Boron in powder made by the Moissan process in Germany is worth \$142.80 per kilogram (2.2 pounds); germanium, fused by electrolysis, sells at \$59.50 per gram; lanthanum, in tales, \$9.04 per gram; tellurium, \$106.10 and \$107.10 a kilogram; uranium, \$190.40 per kilogram, and zirconium, \$95.20 per kilogram. Most of the rare metals are used in the laboratory for experimental purposes, but a few, like iridium quoted at \$9.52 and \$10.71 per 10 grams in Germany; osmium, \$17.14 per 10 grams;

THE AUTOMOBILE MAGAZINE

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AUTOMOBILING AND
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THE AUTOMOBILE PRESS

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Auto Accidents

It is particularly gratifying to learn from the half-yearly report from the Coroner's office in the Borough of Manhattan that of 178 persons who were run down by vehicles and killed in the streets of New York, only 16 of this number were victims of automobiles. Horse cars and other horse propelled vehicles were responsible for four times as many, while the subway and elevated cars caused five times as many deaths as that caused by the automobile.

This is the more surprising in view of the fact that the daily press seems to make it a particular point to dwell with alarming emphasis on the casualties caused by what they choose to term the death-dealing auto. The concerted malice of the press undoubtedly has had a most pernicious effect on the public mind, and many of the vicious laws that have been enacted with a view to discriminating against the use of the automobile as compared with other vehicles is due to this persistent poisoning of the popular mind.

It is also a matter of satisfaction to all lovers of automobiling to observe that as the number of auto cars increases, the ratio of the number of accidents diminishes. This is as it should be, and as might naturally be expected. Auto drivers are gaining skill and confidence in their calling. The automobile training schools are setting up a higher standard of excellence in their courses of training and a much higher grade of merit in their closing examinations. As an illustration of this fact it might be stated that in a special class of nearly one hundred pupils who had been instructed in one of the leading automobile

schools in New York for a period extending over three months, only thirty-six passed the examination, and there is no other course open to those who failed than to take another course of study and pass another and perhaps more severe examination before becoming qualified to obtain a license.

It has been remarked before that there was a tendency on the part of chauffeurs in the early days of automobiling to show themselves off in the crowded thoroughfares. They are gradually outliving this silly vanity, and seem satisfied when they give each other "the dust" in lonely by-ways where the pedestrians are few and far between. The country constable is setting his "traps" there, and is justly becoming a terror to evildoers.

The most salutary and most promising characteristic of the lovers of automobiling is the growing desire of the members of the leading clubs to see that common sense regulations are enforced with impartiality to the end that reckless and consequently vicious auto driving may be stopped, thereby creating a healthier public feeling in regard to one of the most useful as well as the most delightful methods of transportation that has ever been established. When this takes place it will be seen that legislation which, even in its worst forms, is but a reflex of popular opinion, will indicate a spirit of clearer sanity and kinder encouragement in regard to the automobile, as it now does to the antiquated and worn-out methods of transportation.

The Modern Juggernaut

The poet Campbell asked a difficult question in his stirring lines beginning: "Did Peace Descend to Triumph and to Save, When Free-born Britons Crossed that Indian Wave?" Doubtless many reforms were inaugurated by the British possessing themselves of India. The car of Juggernaut was abolished. The Hindoo fanatics were not permitted to prostrate themselves under the wheels of the death dealing car. Much as the poor heathen desired to get to the Islands of the Blessed by the Juggernaut route he had to forego the promised bliss and wait a little longer. He is back at his old tricks again. It came about in this wise. An English automobilist returning in his machine to Calcutta struck a native and gave him ten shillings as a solace for his bruises. The news was flashed abroad with that strange decree of occult rapidity peculiar to Eastern people, and now the automobilists in India are pestered by natives prostrating themselves in the path of the flying cars and the looking for ten shillings. This is very discouraging. It is bad enough to be in New Jersey

and be held up by a country constable, and to be fined and confined for crawling along at a snail's pace, but to pick one's way laboriously on a track strewn with black Hindoos or copper-colored Sepoys, at ten shillings a knock, is worse. What is the automobile to strike against next?

A Jail Sentence for Reckless Speeding

Judge Joseph H. Beall, of Yonkers, N. Y., is noted for having stern convictions concerning his public duties with the courage to reduce them to practice. One day last month Judge Beall made himself famous by sentencing George W. Bryant and his chauffeur, Frank Busold, to serve two months in jail and to pay a fine of \$50 for reckless driving of an automobile. Both are out on bail, but the case is notable by being the first in New York State where a prison sentence was imposed. Judge Beall prepared an "opinion" on the case, which reads:

"The automobile is here to stay." At present largely the toy and the sport of the wealthy—a splendid toy and a delightful sport—the future development of these machines and their operation promises immeasurable benefit to mankind.

"But it must be under such proper legislative regulations, duly enforced by the courts, as will insure safety to the persons and property of others. It is intolerable that the public highways should be seized upon by reckless, and, in many instances, incompetent drivers, to the exclusion or imperilment of other vehicles and pedestrians.

"The whole fabric of our law is a compromise adjustment of the rights of men. The majority of automobilists recognize this.

"Upon the careless minority fines have proven to be ineffectual. It, therefore, becomes the duty of the courts to apply measures more stringent."

The offense charged resulted in a collision which overturned the carriage of Mrs. S. M. Odell, of Yonkers, severely injuring several persons. The allegation was made that Mr. Bryant's car was racing with another automobile when the accident happened. The chauffeur was driving and the owner denied responsibility for the accident.

The "opinion" expressed by Judge Beall will be considered sensible by most automobile owners, but the inflicting of extreme punishment for a first offense outrages all sense of justice. The laws enacted for the regulation of automobiles on public highways for the protection of the people and, in fact, laws applying to nearly all crimes, take cognizance of first offenses and treat the criminals as lightly as justice will admit.

There are too many people around the city of New York who are reckless automobile drivers by habit and repute with records in the courts, but there was no necessity for Judge Beall to strike a first offender to vindicate the might and majesty of the law. Drastic punishment for an old offender would have been more effective than making a martyr of a first offender.

Lessons of the Glidden Tour

Criticism of the management of the Glidden Automobile Tour has been far-reaching and somewhat emphatic, but no event of the kind was ever conducted in a manner to silence all fault-finders. When one reflects calmly on the difficulties to be overcome and the amazing multiplicity of details to be arranged, the wonder grows that the work was managed so well by a set of men who were necessarily unfamiliar with the business. A party numbering about three hundred persons had to be provided with accommodations and some comforts every night at places far apart and frequently in districts that provided neither satisfactory food or meager shelter and which had to be supplemented by the foresight of the committee.

The writer for about ten years was saddled with the responsibility of arranging the accommodation for a convention of nearly one thousand persons, and there always was a fragment of discontents that shouted loudly and vociferously their condemnation of the outrageous mismanagement of the committee, which was represented by the secretary, who did all the work. A reassuring feature about these complaints was that they were always voiced by the same natural growlers whose principal pleasure at the convention seemed to be in having something to roar about. These people are always noisy and their clamor makes others feel that there are causes of complaint they had failed to realize before.

We are inclined to think that the complaints we have heard voiced about the management of the Glidden tour came from the same class of chronic fault-finders and that most of the people whose comfort was concerned were fairly well satisfied, and were ready to excuse the unavoidable shortcomings.

As the Glidden automobile tour is going to be an annual event and as it is always likely to call for provision being made for the comfort of a large crowd of people staying over night at places far apart, we think that some concern such as Thos. Cook & Son or Raymond & Whitcomb should be engaged to arrange for the comfort of the tourists. Should that not be considered necessary by the people in charge of the tour, they ought to solicit the help of

Mr. Glidden. He has had so much experience in arranging details of his own tours and is without question so strong in executive ability, that his advice and counsel would be of the greatest value if he could not be induced to take the active management.

The tour was no doubt an unmitigated success from the standpoint of its purpose. The large number of automobile manufacturers that entered cars for the tour did so to prove the merit of their product under the most trying conditions of service and their faith in the efficiency and durability of their cars was very well founded. The number of cars that really failed to meet the exacting conditions of that long journey was remarkably small, and for thirteen cars to arrive with an absolutely faultless score was very astonishing. We know of no event or series of tests that were better calculated to assure a high character for American automobiles than the Glidden tour. That ought to be regarded as being of full value for the expense incurred and the hardships endured.

Auto Car Wheels

The favor with which wheels with wooden spokes are being received is based more upon the fact that they are easy to keep clean, and not from any superiority over wire wheels. In many respects they are inferior to well-built wire wheels. They are easily affected by climatic changes, having a tendency to work loose in a protracted spell of dry weather. The liability to collapse is also much greater, especially under very severe side strains, such as are set up by very violent side pressure against curbs, generally caused by skidding.

The great strength of the tension wire wheel has been amply demonstrated on high-powered racing cars. Their ability to resist severe side strains is incomparably higher than the wooden wheel, even when the spokes are strengthened by "staggering." An accident to a wooden wheel generally puts it out of service, whereas, the tension wire wheel can be readily repaired. The difficulty in keeping the wire wheels clean is being partially overcome by enameling the hubs and spokes when they begin to lose their smart appearance, which they quickly do, unless kept scrupulously clean, and with the tangentially arranged wire spokes the process of cleaning thoroughly requires considerable time.

It need hardly be said that of whatever material the wheels are constructed the larger size will run with a greater degree of smoothness than the smaller size of wheels. The latter sink deeper into depressions, causing a constant series of vibrations of a greater or less degree of violence, where the larger wheel passes over them with a much

lessened shock, as a smaller portion of the rim of the wheel is affected. Large wheels, of course, add to the first cost of tires, but the smoother running of the car, especially in long journeys, is an item that has to be experienced to be completely appreciated.

Self Defense

The organization of an association having for its purpose the obtaining for drivers of automobiles equal privileges with drivers of horse-drawn vehicles and riders of bicycles, is a step in the right direction. Mr. G. H. Smith, of the White Company, was elected president, and Mr. I. J. Morse, of the Locomobile Company, secretary. The intolerable conditions that prevail in New Jersey and Pennsylvania are such that more than half of the arrests made are entirely without justification. The association purposes defending its members, so that the organization will be for mutual protection as well as for shaping legislation. Those who are familiar with the working of our legislatures know that an influential committee in attendance while the members are in session is the most successful method of affecting the action of the State legislatures and it would be wise on the part of the organization to carefully select its committee on legislation. Men of political experience and supplied with sufficient means could do more in a few days to persuade a body of hungry legislators to amend certain measures than an army of well-meaning citizens appealing frantically to their sense of justice. It is a pity that such conditions exist, but the end to be gained often justifies the means, and it is better to throw a bone to a hungry dog than become a prey to the teeth of the voracious animal. This is not bribery. This is self-defense.

Finding Strange Scenes

It is the habit of every motorist to follow the beaten tracks when touring. Such men cannot appreciate the real interest to be derived from touring over unknown roads and roads not usually followed by tourists. In case the man who drives an automobile desires to enjoy life he should by all means get off the beaten course and take a general direction, following that until he brings up at some known point. In other words, "get lost," for in that is interest and discovery. New roads are found, new scenery appears, and he who goes on the blind run invariably returns delighted with himself and delighted with the day in general. On the main road there is dust and inconvenience owing to steady traffic, while out on the roads not usually traveled a man may go along for miles without seeing another motorist. In New Jersey the writer has en-

joyed many a run of from fifty to one hundred miles, and during the entire journey has met not over a dozen motorists, while on the main road at least one hundred would have been passed without a doubt. The route books give a main trunk line, and, as a rule, tourists stick to that line, giving dust to others and taking dust themselves. All around them are roads just as good, but roads which are not as well marked perhaps, and these novices in the automobiles field dare not leave the beaten track. For this they must be pitied, for their lot is not a happy one. Of course, there are inconveniences in traveling through a strange country, for in event of accident telephones are hard to get to, and it may be that the driver will have to remain for some time at the point of the accident before relief may be found. Still, experiences are what are sought, and experiences are interesting when tales are told in after days, after months or years. The timid perhaps will do well to remain in the beaten track, for they will always find trouble when traveling over strange roads. The blind road may be recommended for touring in general, for once a man has discovered his own roads without recourse to the route maps, he will not thereafter study the cards but will take every run without direction, and stop for meals wherever he may be.

Thankless Detroit

There are few cities in the world that have profited more from automobiles than Detroit has done, yet we know of no city where automobile interests have been so abused as by the city fathers of Michigan's greatest city. It is the old story of ingratitude—biting the hand that gives succor.

The speed limit cranks are after the Detroit automobilists and the limit they wish to place would make traveling by auto about equivalent to walking.

Michigan has a law that specifically provides that no machine shall be operated at a higher speed "than is reasonable and proper."

Detroit's common council has taken this clause for a cue and has before its august body a measure requiring automobilists to drive at a rate not exceeding four miles an hour on all thoroughfares within a radius of a half-mile of the city hall.

Infraction of this proposed ordinance would be made punishable by a fine of not to exceed \$500 and six months' imprisonment, or both.

Record of Runs

The Automobilist's Daily Record of Runs, edited by Mr. C. Jarrott and Mr. W. M. Letts, is a handsomely bound volume containing a compact digest of

the laws of the various States on the subject of automobilism. There is also a brief synopsis of the European laws on motoring, with full instructions in regard to securing licenses and other necessary papers. The main feature of the book, however, is an excellently prepared list of subjects with blank spaces for entries to be made each day during a touring excursion. The book really fills a long felt want. A few minutes each day would suffice to keep a record that could not fail to be of real value and of general interest. The subjects referred to on the table of daily questions cover all the ordinary subjects incidental to motoring, while an appropriate blank space for general remarks completes the record of each day's entries. The

but as the price of alcohol will be very high until the tax is removed it was considered advisable to defer the tests until the beginning of the year. Meanwhile the United States Department of Agriculture has engaged Prof. Charles E. Lucke, of Columbia University, to make a series of experiments with denaturized alcohol as a fuel for internal combustion engines. The work will be conducted at the Columbia University laboratories, and the result of the experiments, with all other available information on the subject, will be published in an official bulletin and issued by the Department of Agriculture on January 1, 1907, when the revenue tax on denaturized alcohol will be removed. Professor Lucke will test any apparatus designed for using alcohol and will return the



ONE OF THE POPE-HARTFORDS THAT WENT THROUGH THE GLIDDEN TOUR WITH CLEAN SCORE

book costs one dollar, and is published by the F. A. Stokes Company of New York city.

Making Ready to Use Alcohol Fuel

Indications are that the automobilist would be properly informed of what success may be achieved with alcohol as a fuel before the law abolishing the tax on denaturized alcohol goes into effect, on January 1, next. Various makers of automobiles are experimenting with apparatus calculated to make the use of alcohol practicable and the Automobile Club of America are prepared to make systematic tests of cars using alcohol as fuel. The committee appointed by President Morris to arrange a series of tests for automobiles using alcohol intended instituting tests in September,

apparatus after the tests are concluded. He invites anyone who has made experiments with alcohol to give him any information he can.

Automobile Race in Mexico

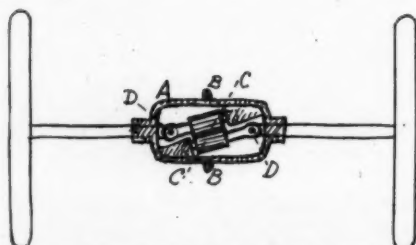
Automobiles are not yet much in evidence in Mexico, but the town of Guadalajara must have some remarkably enterprising citizens, for twenty-six motor cars have been purchased by them within the last year. The first automobile race in that part of the country took place on September 16, the anniversary of Mexican independence. The course was from Guadalajara to the San Isidro hacienda, a distance of thirty miles, and the race was a free-for-all. The race followed an automobile parade in this city.

Differentials and Equalizers

By Charles H. Cochran

The differential gear or other equalizing mechanism of an automobile seem to be a puzzle to a good many autoists, who fail to grasp or fully understand their operation. It is not a bad idea to take one apart to see how it works, for it is interesting, and its office is useful.

Without some sort of mechanism to



A DIFFERENTIAL GEAR AND THE UNIVERSAL JOINT PRINCIPLE

permit the two rear driving wheels to turn differently, it would not be possible to turn an automobile around except with skidding, which is often dangerous. It is to prevent this that the differential gear and other mechanisms have been devised. The differential gear is based on the idea of cutting or dividing the driving axle into two parts, and so coupling these together with toothed gears that each may turn on the other in some degree, though both are driven with the same source of power.

The easiest way to understand one is to consult the drawing of the simplest mechanism ever made—the universal joint affair—which is illustrated here to show the principle, though the mechanism is not in use because it gives a slight side motion that is objectionable.

The gear case A is turned or rotated by a chain running on the sprocket B B, and this turns both of the axles and, of course, both of the driving wheels, but either wheel and its axle can run ahead of the other wheel, because of the toothed gearing at C C, that permits differential motion. At D D are shown the universal joints which give the name to this mechanism.

It is easy to see that with this arrangement, when an automobile goes around a curve, the inner wheel can return backwards as regards its position with the outer wheel, permitting the curve to be taken.

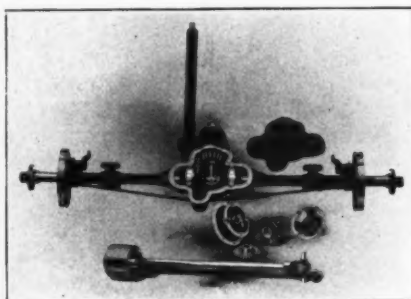
To express the matter in another way, the outer wheel having to travel further because it takes the larger side of the curve, pulls on the toothed gearing C and slows down the inner wheel in precisely the same degree that its own speed increases, thus

equalizing the action of the two wheels.

A cart for a horse requires no equalizing mechanism, because both wheels run loose on the axle, and are free to turn either way. But in the automobile the rear wheels are both built fast to the axle in order to drive, and this condition requires a differential gear or something of the sort to enable them to have some independent motion for making curves.

The most favored forms of differential gears are the beveled gear and the spur gear. We illustrate the beveled type here, because it is the easiest to understand. In the perspective drawing we see the differential case opened and the four bevel pinions and the bevel gear with their case separated.

In the diagram of the bevel gear mechanism we see the parts of a differential in cross section (that is as if sliced through the center),



BEVEL GEAR

and can discover just how the parts fit together. A is the driving pinion on the propeller shaft; B is the large bevel gear that turns the differential case C and its contents. These contents are: First, the four bevel pinions D D (only two shown), which turn around with the case, and drive the bevel gears E and F, which are fast to the two halves of the divided axle.

When the automobile is running, the big bevel gear and the differential case and four pinions all roll around together uniformly, and while the automobile is running straight ahead the four bevel pinions turn on their spindles; but just as soon as a curve is taken, and one driving wheel starts to run ahead, then the bevel pinions turn and allow that axle and its wheel to go ahead, and the other axle and wheel to go comparatively slower.

If the reader fails to understand from this description, his only hope is to take an automobile, jack up the rear wheels from the ground, and uncover the differential case. Then, by tak-

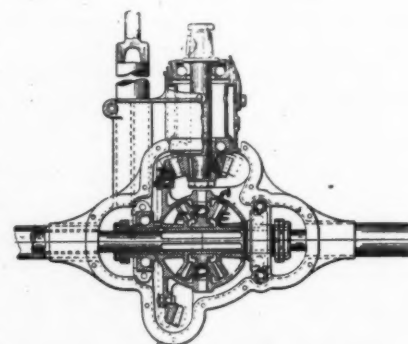
ing hold of the wheels and pulling and turning them this way and that, he will "get on" to the operation of the mechanism.

This condition of driving with both wheels is the primary cause of skidding, the term we use to represent the side slip or slew that comes from one driving wheel slipping while the other tends to hold the ground. The differential is not entirely a preventive of skidding. For instance, if you steer a car so that one rear wheel is in slippery mud and the other on the rough road, the former wheel tends to turn faster and to slew the automobile around, producing skidding.

Every experienced autoist knows how necessary it is to be careful when taking a curve where there is any wet or mud; for if one driving wheel catches it more than the other, there is danger of a bad slew. A friend of the writer's, who had run an automobile for nearly a year, and thought he knew all about it, got his lesson by going around a muddy corner at some speed, with a skid that turned the vehicle completely over. Fortunately his wife, who accompanied him, landed in the soft mud unhurt, while he remained underneath the machine, also without severe bruises.

If you understand the differential thoroughly, you will appreciate just what it will do and what it must not be expected to do, and never take a chance in speeding around a muddy corner.

Physician (looking into his ante-room, where a number of patients are waiting) —"Who has been waiting the longest?" Tailor (who has called to present his bill)—"I have, doctor. I delivered the clothes to you three years ago."



SECTION OF BEVEL GEAR

The Standard Carriage Lamp Co., Chicago, has changed its name to the Standard Lamp & Manufacturing Co. Finding Chicago too contracted for their business, they are building new works at Charlotte, Mich., on a scale that will provide manufacturing facilities for many years.

With the Glidden Tourists in Canada

By Angus Sinclair

It was a happy thought that moved the Racing Committee of the Automobile Association of America to arrange for the Glidden automobile tour to pass through part of Canada. The region traversed in the run from Montreal to Quebec has a history of stirring events that equals in interest any part of the American continent.

The Alluring Part of the Tour

Circumstances beyond my control prevented me from seeing as much of the tour as I desired, but by riding in a Packard car from Montreal to Quebec, I participated in a most alluring part of the tour and received impressions of the outing, of the country passed through, of the quaint inhabitants, of their farms and villages calculated to supply pleasing reminiscences for a lifetime.

Montreal Gives Hearty Welcome

I was in Montreal in good season to see the touring party arrive and before that time interviewed many old friends whose views indicated that the automobilists were going to receive an enthusiastic welcome, not only in Canada's metropolis, but in every place favored by the presence of the tourists. Bunting was displayed very lavishly with the stars and stripes strongly in evidence. Enthusiastic crowds greeted the cars as they passed through the streets to their control garage beside the Windsor Hotel.

Good Words from Canadian Press

The Canadian press did zealous work on behalf of the tourists, the French press being particularly friendly, both in Montreal and in Quebec. They devoted long descriptions of the tour with those engaged in it, besides giving detailed particulars of the route from Montreal to Quebec. To this was added good advice to the people along the route, about keeping their children and animals off the highways when the cavalcade was passing. The effect of this advice was very apparent during the tour, for no stray animals were to be seen on the roads and it was very rarely that any of the spectators crossed the highway when cars were approaching.

Automobile Club of Montreal Treats

Private citizens, automobile operators, and public functionaries vied with each other in extending a hearty welcome to the party. The Automobile Club of Montreal excelled itself in hospitality under the lead of President Duncan Macdonald. The hospitality was so universal that it was difficult to identify the hosts. There was a trip up the beautiful Mount Royal, which overlooks the city, and a

charming range of scenery, then a reception by the Mayor at the City Hall and a trip through the famous Lachine Rapids. The whole concluded with a visit in the evening to Dominion Park, the Coney Island of Montreal. There seemed to be divided honors on that occasion, between Duncan Macdonald and Charles J. Glidden, who seemed to be equally lionized.

Lower Canada in Fete

Bright and early Friday morning the car dispatcher began his work and by seven o'clock a long array of automobiles was speeding over the streets that led towards the main highway leading to Quebec. We had not yet left the outskirts of Montreal when it became apparent that the people were making a fete of the occasion. There is nothing the French people enjoy so much as a fete or holiday that brings them together for social enjoyment and neighborly intercourse. The people of the Province of Quebec indi-



FRENCH CANADIAN FARMER WITH HIS EIGHT SONS
The daughters don't count

cated that they still cling to the habits and customs of their ancestors. Old and young were dressed in their holiday attire. All the people residing within ten miles of the route were out swelling the multitude that lined the roadside and crowded the village sidewalks. Flags, flowers and decorations of the most varied and curious character were displayed to manifest the welcome of the people, who cheered and shouted as the cars passed. Among many of them there was an impression that it was a race and the expression faites plus vite, faites plus vite (faster), was heard from almost every group of spectators, mixed with bien venu (welcome) and other friendly expressions. Many of the girls threw kisses to the best looking of the men. They always discriminated, Spooner said.

The highways of Lower Canada resemble what the Highland roads were before General Wade made them passable for man and vehicle, and gave rise to the rhyme:

Had you just seen these roads before
they were made
You would hold up your hands and
bless General Wade.

Rough Roads

The road used by the touring party is the principal highway between Montreal and Quebec, and in a general way follows the St. Lawrence river, but makes cuts far inward at various places to avoid the windings of the great water way. That part of the Province of Quebec has been at one period a shallow sea and evidence of this is still found in many places. It was a sea or inland lake until the St. Lawrence cut its way through the shale rocky barrier now seen in the heights of Quebec. That was a long time ago, however, but it gives its inheritance to the roads. They are principally three furrows through beds of sand. The horse uses the mid furrow and the wheels the side ones. On the prairies where black loam has accumulated by ages of deposit and clay has been washed in from some source, the roads are fairly solid in dry weather, but are undulating. On a few districts the road touches the rock formation and has a harsh effect on fast speeding wheels.

On the black muck-clay districts the roads were cut sidewise by a multitude of shallow furrows brought about by rain washing away the less cohesive material. On that kind of road the progress of the car approached the movements of the switchback demon cars seen at certain pleasure resorts. The resulting sensation was not unpleasant, except when an unusually deep rut was encountered, when the upward projection of the passenger gave time to reflect on how the landing would feel.

Bone Shaking

The roads as a whole were calculated to shake the bones of people riding automobiles at speeds varying from 20 to 45 miles an hour. The delays at control stations and the continual reducing of speed to cross yawning thank-you-ma'ams and rough culverts compelled the tourists to run at high speed where opportunity offered and the opportunities hardly deserved the name, as we were continually bouncing over irregularities of the road that jerked one five and six inches off the seat. The mystery to me throughout the whole trip was the springs keeping intact.

I enjoyed long years of experience keeping the running gear of locomotives and cars in working order on exceedingly rough railways, and broken springs kept the operating expenses high. I do not think a passenger car ever went over a division enduring successfully the shocks that the Packard car I was riding

in came through without fracture of any kind.

Route Through a Fine Country

The route was through a very picturesque country and the people are as picturesque as their surroundings. The country people live mostly in villages, a practice made necessary in early days for mutual protection against Indians. Evidences of tireless industry are everywhere apparent and meet the old time demand that every rod of land maintains its man. The villages are clean and remarkably free from slovenliness. The land is tilled almost as wastelessly as the farms are in Normandy, from whence the ancestors of many of these people came.

A prominent edifice in every village is the substantial church or cathedral, and every few miles along the wayside are to be seen holy shrines, many of them being artistic productions, while others are merely a wooden cross.

No Race Suicide There

A most striking spectacle at nearly every house was the number of children around the parent knees. President Roosevelt ought to make a pilgrimage through that country to see a region where there is not the slightest danger of race suicide.

Persistence of Language

While going through the Province of Quebec I was struck with the persistency of certain things. There has been considerable admixturing of Eng-

people are mostly dark-haired like those one sees in Burgundy and the Southern provinces of France, but every now and again would be seen a family of youngsters with glaring red hair. They were almost as strange to their surroundings as the red-haired



STEEP SANDY HILL BETWEEN THREE RIVERS AND QUEBEC

family that Kipling found in the mountains of India, whose evening hymn was a barbaric rendering of *The Wearing of the Green*. There are red-haired Celts in France, but they were not the people brought by the Jesuit priests to colonize the New World.

nal head. The regiment consisted mostly of Frasers, Chisholms, McPhersons and Grants, all of them noted for having lurid hair. When the war that made Canada a British possession was ended, the soldiers who had brought the victory for British arms were no longer needed and the government of Great Britain did not want in Scotland any Highlanders that could be kept in exile. It was only sixteen years since the battle of Culloden was fought, the last struggle made to restore the British crown to the Stewarts, and Lord Lovat, the chief of these same Frasers, had been beheaded on Tower Hill, London.

The Kind of Treatment Given to the Vanquished in Those Days

The powers that were had no use for the members of that Highland regiment, so they were turned loose to prosper or starve in Lower Canada. Most of them had been shepherds or sons of farmers before joining the army, so they readily amalgamated with the farming classes of Quebec Province and their mark is vividly impressed upon their descendants. The language they spoke gave in to that of the majority and neither Gaelic, their native tongue, nor English, their acquired speech, survived the first generation. I met one Angus McDonald in that district, who did not know a word of Gaelic or English. His solitary mental connection with the past



STEARNS CAR NO. 3, WITH L. J. PETRE STEERING INTO THREE RIVERS



A COUNTRY CHURCHYARD IN CANADA

lish speaking people among these French Canadians, but the majority rules in language as in government, and the second generations are French with no knowledge of the tongue of their ancestors.

Red-Haired French Canadians

Another thing struck me as curious, until I found an explanation. The

Injection of Scots Highlanders

On investigating this curious racial phenomenon I found that in 1762 a regiment of soldiers, the 78th Highlanders, was disbanded in Quebec by the British Government. This was a regiment largely recruited from the Fraser clan, of which Lord Lovat, of Kirkhill near Inverness, was the nomi-

of his race was that he said his grandfather had talked the strange tongue.

Welcome Mixed With Rapine

The French Canadian country people who came to see the show of nearly a hundred automobiles rushing over their rough roads at express train speed gave the tourists as cordial a welcome as could be desired, but there

were others who viewed the tourists as victims to be skinned and they performed the operation thoroughly. The worst offenders in this respect were in the town of Three Rivers. A history of Canada says that in 1682 there were twenty-five houses in Three Rivers and brandy was sold in eighteen of them. That indicated a low scale of morality. The modern wickedness has taken a different form, that of cheating. The natives are experts in that vice and the Glidden tourists carried nothing away from the town that the natives could freeze to.

It was a relief when 'the dust of Three Rivers region was clouding behind the cars and we were once more receiving orations and flowers from the unsophisticated natives. The same type of villages were passed, with their peaked roof houses and tree shaded streets. There was some strenuous climbing up sand-covered banks and over steep sides of ravines, but roads soon began to improve and the fortified city of Quebec was prepared to give nearly as hearty a welcome as the country people had done.

What Makes Touring Popular

To people who have not taken part in this kind of tour there is something mysterious concerning the influences that hold together a party of more than three hundred people enduring physical hardships and enjoying no luxuries. As far as I could make out, the compensations were in the hilarious effect of the open air, the stimulating effect of moving rapidly through space and the ever changing scenery greeting the eyes. Then there was a

nessed renewals of friendships which were so warm that strangers might have well imagined that the parties had met at the end of a long and dangerous campaign. The tales of skilful triumphs and narrow escapes were like the yarns of an old soldier.

won, and from their lofty vantage ground cut the cavalry to pieces. Now it is the automobile that is doing the climbing. Mr. T. B. Murray, of Scotstown, has performed a notable feat in climbing Mount Beattock, in Ross-shire, and run down into Applecross on the



By courtesy of Canadian Pacific Railway

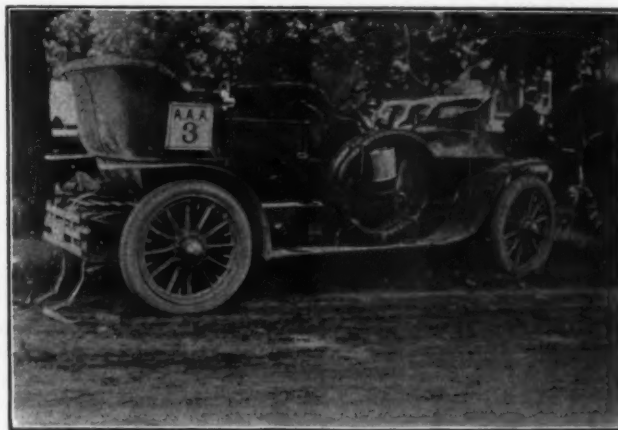
QUEBEC, FROM SOUTH SHORE OF ST. LAWRENCE

The pleasure of this tour was greatly enhanced by the presence of Mr. Charles J. Glidden, who helped the tourists over many difficulties and was always throwing rays of sunshine on every cloud from his charming personality.

other side. With four persons aboard he steered his car up a rough gradient, averaging one in fifteen, with parts one in five and one in eight, with many narrow and dangerous twists, while for some distance the narrow road runs alongside a yawning precipice. The 6½



CHECKING STATION AT PONT NEUF, NEW BRIDGE



STEARNS, THE FIRST ARRIVAL AT ELIZABETHTOWN

sense of comradeship that developed quickly till big groups of the crowd were on the familiar terms of jibing each other, as Tom, Dick and Harry. Every stop at a control was utilized to extend acquaintance and good fellowship, while the nights off duty wit-

Hill Climbing in Scotland

The clans of Scotland were always noted for hill climbing. At the Battle of Falkirk a race was run between the English cavalry and the MacGregors. It was a question of who could reach the top of the hill first. The MacGregors

miles to the summit were made in 26½ minutes, reaching an altitude of 2,054 feet. Mr. Murray ran down into Applecross, where he was warmly welcomed by the Gaelic-speaking people, most of whom had never seen an automobile before.

Heavy Electric Wagons and Trucks

By A. Frederick Collins

The consensus of opinion in automobile circles seems to be that until some radical improvements are made in the construction of storage batteries the electrically operated vehicle of whatever kind, can never become either popular or profitable.

These impressions are largely based, and it may be said not altogether without reason, on the troublesome nature of the lead storage cell, the high cost of its upkeep and its rapid deterioration, especially when permitted to stand for any considerable time without being used.

Yet in the face of this damaging testimony, which any owner of an electric machine of five years ago will uphold as the absolute truth, all kinds of this particular type of automobile from the small and compact runabout to the heaviest trucks are being turned out by the hundreds and are to be seen in active operation in all the cities in the land.

To account, then, for this apparent discrepancy between theory and practice, one can only come to the conclusion that electricity must possess some virtues and certain advantages over gas or steam, and that trouble, if it does not involve expense, seldom concerns the owner of a machine, and, further, that lack of economy in operation is a factor that other good qualities may compensate for.

The most interesting development in electric vehicles have been in the line of wagons and heavy trucks and some facts and figures relating to these may prove of more than passing interest to those commercially inclined. The data which follows has been taken very largely from that compiled by Mr. H. P. Maxim, who has spent a great deal of time in investigating, designing and building of vehicles using electric power.

Different from the majority of his contemporary workers, this engineer believes that the electric vehicle has been evolved into what would appear its fixed and final form; that is, as long as the storage battery method supplies the current for operating the motor. In the styles of heavy trucks shown in the illustrations the driving wheels are usually equipped with independent motors, the latter being energized from the battery, which is placed immediately between the wheels and below the body of the truck.

Like other types of power producers, the storage battery has received much attention during the past decade, and for the last three or four years it has been a fairly reliable piece of apparatus, when properly handled; its application to self-propelled vehicles has called forth much ingenuity, with the result that now it

may be said to have reached a high degree of efficiency, if not economy.

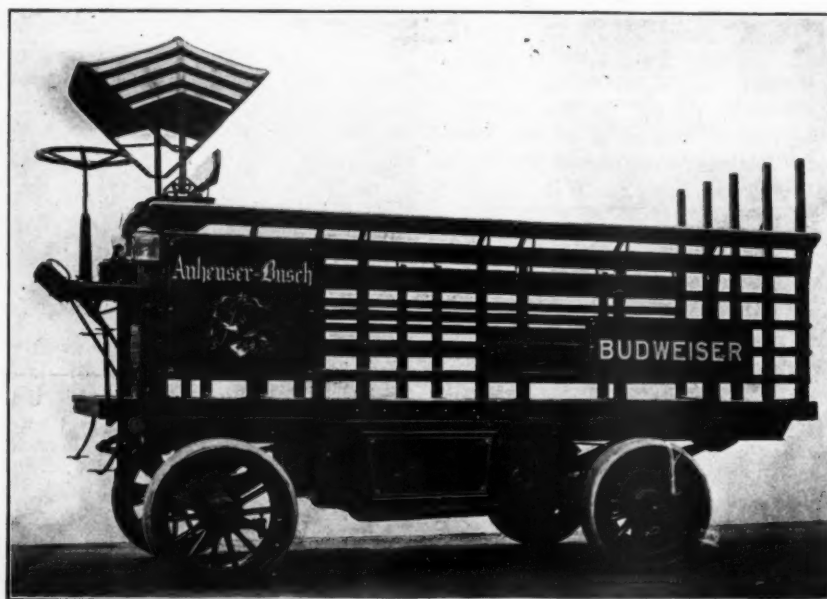
What Mr. Maxim means by the statement that the electric automobile has reached a fixed and final type, is that all electric machines built by the different makers are practically the same, not only in general design, but in their minor details as well, which cannot be said of those using internal combustion engines, for, while the last named have been resolved down to an eminently reliable mechanism, there are numerous and varied arrangements for transmitting and controlling the power applied to the driving wheels.

Thus in all electric vehicles, whether for pleasure or business, there is, unless we except the Edison iron and nickel

wagon, and for this reason: all or nearly all of the large stores, at least in New York and Chicago, use electric delivery wagons of approximately 2,000 pounds capacity and these have to make in the course of a day about 30 miles.

Now, the expense of keeping up a battery depends largely on the number of times it is charged for a given service. A battery, consequently, that has a considerable margin of capacity makes the run of thirty miles per day on one charge very easily, and hence the process of charging may be conducted through the watches of the night and without undue haste. A smaller battery will require recharging some time during the day, probably the noon hour, when the process must be forced, and this produces a very deleterious effect on the plates.

For a two thousand pound wagon the



FIVE-TON COLUMBIA TRUCK, MADE BY THE ELECTRIC VEHICLE CO., HARTFORD, CONN.

cell, which has not yet come into competitive use, the lead posted plate battery and the usual rubber tire, the chief differences in the many makes of wagons being those of batteries of larger or smaller capacities and tires of diverse sizes, and it is these two very unlike features that mark the essential difference between a satisfactory and an unsatisfactory, a good and a bad wagon.

Given an electric vehicle with a battery and tires that are large enough, and it will be found to prove reliable, as the word goes, as far as running is concerned, nor will there be trouble experienced with buckling, short-circuiting, or other untoward and invisible causes for breaking down, so exasperating a few years ago. The value of a sufficiently large battery will be seen quite as quickly when checking up the cost of maintenance as in the actual operation of a

cost of operation per annum, allowing 30 miles per day and 288 working days per year, has been found by actual tests to be for the maintenance or upkeep of the battery alone, a trifle over \$400, or, specifically, \$404.85; this includes new positive and negative plates, renewals of separators, both wooden and rubber, labor in connection with the battery, supplies and all expenses. The tires are the next heaviest item of expense, and here, again, the value of generous proportions plays an active part in reducing the maintenance expense, for large tires do not wear out proportionately as fast as those in which the amount of material has been stinted. For a wagon of the size named the tire should be not less than 3.5 inches in width, and the price of solid rubber tires having the above dimensions and a diameter of 36 inches is about \$180.

Where the roads are fairly good a set of tires will cover about 9,000 miles before they require replacing, giving a margin of 370 miles for the year, assuming that 30 miles per day is made for 288 days. The current utilized for charging the battery is placed at \$122.70, the estimate being based on an amount of power equivalent to 14.2 kilowatts, or, roughly, 25 H. P., for each charge per day for each vehicle.

While the price of the current varies according to circumstances under which it is generated, some companies supplying it for as low as 2 cents per kilowatt hour, and others as high as 4 cents—a happy medium between these must be struck. At 14.2 kilowatts per day, the total current required in a year to charge the battery would be 4,090 kilowatt hours, or 5,420 H. P. hours, and at 3 cents per kilowatt hour, it amounts to \$122.70 per year.

With a wagon of good construction and worked under proper conditions, the expense of general repairs is not at all high, and \$73.10 per year was found to be amply sufficient. The depreciation of the machine is the only item that must be assumed arbitrarily, and this is taken at 10 per cent. on its original cost. If it amounts to this much it would be \$182.70 per year. Then there is the interest on the investment to be taken into account, and for a 2,000 pound wagon costing \$2,500, this will be, say, \$125, and here, again, will large batteries and tires prove the cheapest in the long run.

By adding all these items together we find the total expenditures for the upkeep of the wagon to be \$1,088.35 per year, a figure that on first sight might seem to be excessive, and which is somewhat more than in the case of a gasoline machine of the same capacity; but looked at in another light, the expense is not at all alarming, for \$1,088.35 per year means only \$3.78 per day; with an electric wagon it is easy to deliver 250 packages per day when the cost would be exclusive of the labor required to handle them, which would be necessary in any case, but 1.51 cents per package.

It has been found by similar tests that a three ton truck will make an average run of about 24 miles per day, when the renewals of the battery will reach \$570.57 per year, and with the maintenance and depreciation added to it will amount to \$1,609.77, or about 23.2 cents per mile traveled, or 11.6 cents for every ton carried a mile, or \$5.57 per day. For a five-ton truck, the average day's run is about 20 miles, and taking the number of working days of the year to be the same as in the foregoing instances, the mileage per year amounts to 5,760, or 20,160 ton miles. In this case the maintenance and depreciation amounts to \$1,760.68, or, for every mile run, it costs 30.57 cents.

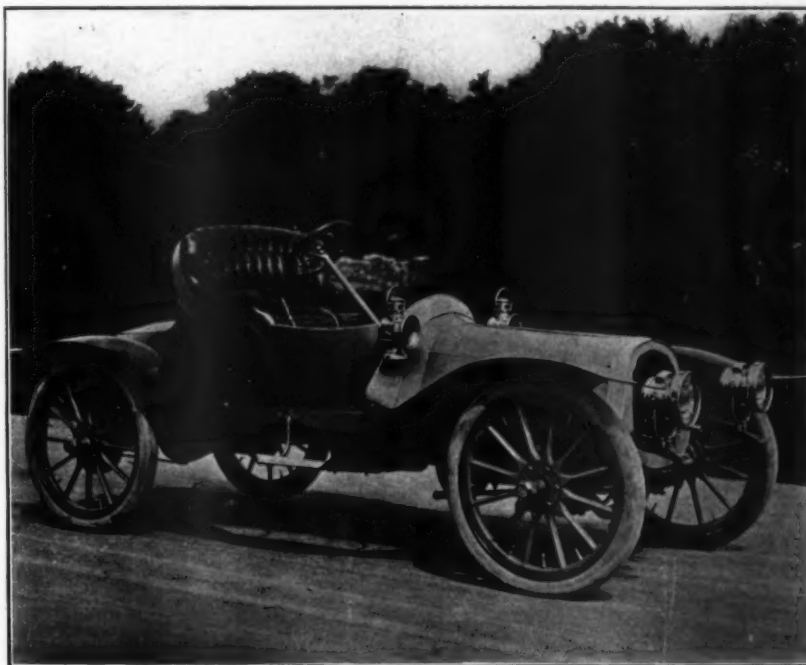
Several years ago an endurance test

was made under the direction of the Automobile Club of America and it was then shown that an electric vehicle cost 8 per cent. more to carry 1,000 pounds one mile than a gasoline motor car, and 2 per cent. less than a steam wagon using a flash boiler. The figures were deduced by taking the price of fuel and charging current prevailing at that time, namely, gasoline at 10.4 cents per gallon, lubricating oil for both steam and gasoline engines at 30 cents per gallon, and current for the storage battery at 4 cents per kilowatt hour. In comparison with animal power it may be said that, roughly, an electric truck will do twice the amount of work as a team of draft horses and at a smaller cost.

There are several companies that make electric vehicles a specialty; one company turns out over a hundred different

air-cooled car on the market, is exhibiting.

Being started on the high gear, it is driven with a permanent high advance spark on the throttle only, and will give range from 3 to 50 to 60 miles, according to road conditions, by just touching the throttle lever. Quick fluctuations in the speed of the car can be made by simply operating the clutch pedal, which, being thrown in the first notch, will release the clutch and retard the spark, thereby preventing the engine from racing and at the same time maintaining a full charge of gas in the cylinders, making it impossible to be stalled by changing gears on a hill. Moving this pedal further forward sets the hub brake gradually. Tipping the foot forward releases the pedal, and the gradual engaging clutch of special design makes the



AEROCAR, 1907 MODEL

styles, and in New York as well as in other large cities the 2,000 pound wagon has found much favor among the leading retail firms.

Aerocar Company, Detroit, Mich.

The 1907, 20 H. P. runabout, Model "C," here illustrated, is new in every respect. In appearance it is an artistic development of the present idea of a modern high-speed gentleman's runabout. Its forms and colors are selected and blended to satisfy the most refined taste. The operation of it is as simple and soft as can be achieved at the present state of the art. The upholstering of the seats and the form of same afford a most commodious and luxurious ease of riding in combination with specially designed springs and the sensation of riding in this car, which is the only silent

car pick up fast but soft. The right-hand pedal operates the transmission brake only, and is used as an emergency brake, in combination with the left-hand pedal. The gear shifting lever is a side lever on the inside of the high side doors which effectually protect the driver from draught or dust.

The mud guards are of special design, made of solid piece of charcoal iron and so shaped that it is not only impossible that any flying water or mud can strike the body or its occupants, but also lightens the weight on the front axle when going at speed, as they are designed on an aeroplane principle; thereby the steering is made very easy and certain.

The commutator used on this car is of ideal construction, as it permits of the absence of any oil from the interior of same, thereby eliminating a permanent

insulator and connected in the best known form for interrupting and making electrical contact—that is, the knife switch. The knife being of hardened and ground steel and the brushes of hard phosphorus bronze, there is practically no limit to the wearing qualities of this commutator. At the same time, the construction of this commutator makes the missing at high speed an impossibility, which is a very hard important point for a high-speed engine as embodied in this car.

The carburetor is without any springs and positive in its adjustment, of the modern three-jet type. How perfect the mixture is supplied by this carburetor at different car speeds is best demonstrated by rapidly opening and closing the throttle, and if properly adjusted this carburetor will never cause any missing or back firing.

The shape of the body and hood, com-

The capacity of twenty-four and a half gallons to the tank is furthermore of importance for a touring runabout, and so far unprecedented. The gasoline tank is provided with two gasoline cocks, one with a regular handle and the other with a square end to be opened with a wrench, when the regular supply of gasoline has been exhausted. The opening of the second cock will insure the driver of enough gasoline for a fifty-mile run and can, therefore, be justly called a low-level gasoline alarm.

This runabout being in a class by itself and in its appearance, design and performance inferior to none of the high-powered runabouts in the market, it is offered at a price which is not prohibitive as is mostly the case with cars of this type.

This runabout can be called the only silent and fast air-cooled runabout of the high-class type in the market.

day evening and the next day Keeler started his 500-mile non-stop run to New York. While he stopped a few minutes at various towns, his engine was not inactive for a moment.

He was accompanied by H. J. De Bear, the A. A. A. official observer, Henry Clinton and B. L. Graves.

When Keeler arrived at the New York Oldsmobile garage he was fairly plastered with mud and exhausted.

The moment the car stopped he fell asleep and hardly could open his eyes to receive the congratulations of his friends. His companions were in like condition.

The start was made from Bretton Woods at 12.10 o'clock Sunday afternoon. Concord was reached at 6 P. M. and an hour was spent for supper. The car left Concord at 7 P. M. and arrived at Nassau at 9.07 P. M. The trip was continued at 9.30 P. M., passed through Manchester at 8 P. M. and Worcester was reached at 12.20 A. M. They left Worcester at 12.30 and arrived at Springfield at 5.15 and after ten minutes proceeded to Hartford, which was reached at 6.15.

The start from Hartford was made at 6.55 A. M. They rolled through New Britain at 7.30 A. M. and reached Bridgeport at 10.30 A. M. Here a pause of 30 minutes was made. They reached New York at 2.25 P. M., the time being taken at 35th street and Broadway.

Considering the conditions of the road, the men showed remarkable endurance to stay in their car for more than a full day.

Matheson Racer

The following are the details of the Matheson racer to be entered in the elimination trials for the Vanderbilt Cup Race, 1906. This racer is the regular stock model for 1907.

Name of car—Matheson.

Name of driver—Ralph Mongini.

Name of designer—Charles R. Greuter.

Weight in pounds—2,200.

Horse power—60.

Bore and stroke of cylinders in inches—6 by 6.

Revolutions per minute—1,200.

Wheel base in inches—112½.

Tread in inches—56.

Transmission—Sliding gear.

Ignition system—Make and break with magneto.

Carburettor—Multiple port.

Clutch—Multiple disk.

Gasoline capacity—30 gallons.

Shock absorbers—Hartford - Trauf-fault.

Tire equipment—Diamond, 34 by 4 front, and 34 by 4½ rear.

Style of cars made by entrant—30-35, 40-45, 60-65 H. P.



KEELER ARRIVED FROM SUPREME ENDURANCE RUN

bined with the aforementioned mud guards, offers a minimum of wind resistance so far achieved in stock cars. The peculiar shape of the rear end of the body also produces air currents which hold down the dust behind the car.

The finish of the car is of such an oily nature that muddy water will not adhere to same, but roll right off, and the only operation necessary to keep the car always looking like new, is to wipe it over with an oily cloth after it has been cleaned. The surfaces of this car are more impervious to any weather conditions than any varnish finish, and this car will always look new without the necessity of employing an experienced coach washer.

Keeler's Supreme Endurance Run

Ernest Keeler earned a place in the automobile Hall of Fame July 29, when he completed a 500-mile run from Bretton Woods in the mountains of New Hampshire to New York City in 26 hours and 18 minutes. He practically was at the wheel of his machine the entire time and 8 hours of the riding was done through a steady rain.

What makes the trip still more remarkable is that Keeler before he started had just completed 15 days of riding with the Glidden tourists. He drove his Oldsmobile of 26-28 H. P. over the 1,200 miles Glidden route and was one of 13 to tie for the trophy with a clean score.

The Glidden Tour finished on Satur-

Touring the Hudson River — Berkshire Hills District

By Robert Bruce

Taking Albany, N. Y., as a center, and imagining a radius of one hundred miles, it is doubtful if there is any other equal area in the United States exceeding this in the infinite variety of scenery and in all-round attractiveness for the automobilist. Within that circle will come the far-famed valley of the Mohawk, most all of the Lake George country, lower Champlain, the upper east and west sides of the Hudson river, and the very best of the Berkshire Hills in western Massachusetts.

Of all of these districts, the best known and most traveled is the Berkshire section, between which and the Hudson valley are a variety of roads scarcely mastered in all their intricacies by the most persistent of motor car travelers. It is one panorama of hill, vale, forest and stream, the roads varying from the very best of macadam to the very worst of the home-made and long-neglected article. But taking the bitter with the sweet, the average will not be so bad as is often anticipated.

It came to me by "underground telegraphy" that the foliage in the Berkshires was finer last fall than it had been for many years past. Certainly it was so in the foothills of the Adirondacks and in the Mohawk valley. The touch of autumn had lighted first upon the tip ends of the topmost trees—slowly crept to the exposed branches, gradually moved in and around, and finally enveloped completely the whole living tree.

Now I knew this to be always on a greater scale in the Berkshire Hills than anywhere in New York State, since the landscape there is more thoroughly adapted to it and more responsive, too. So when business called me to the other side of the Berkshire Hills, I telephoned a friend in Albany suggesting that he and I take some fine day for a ride overland to Pittsfield. I broke in upon him rather suddenly in this manner:

"Hello, John, what do you say to my auto trip scheme? Are you game?"

"Am I game? That's a nice question to ask a man when you are talking over the telephone at \$1.50 per three minutes. An auto trip to Pittsfield? Well, I am really stale for the want of a day off, so you set the day and I'll be with you."

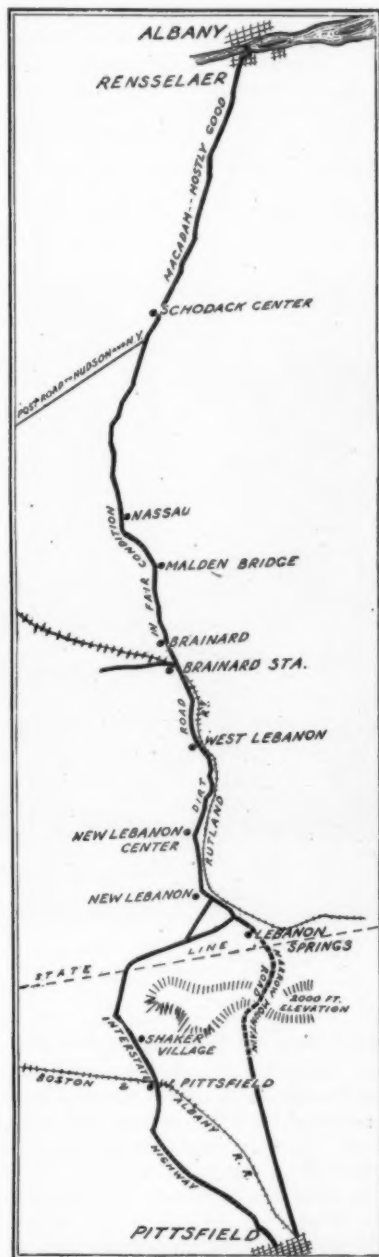
"Can you make it to-morrow?"

"Yes, to-morrow."

So it was that on the first Sunday morning in October, we drove down Capitol Hill, on State street, to the front of the post office, turned right on Broadway and then left over the bridge that carries all the road traffic over the Hudson river at this point. A toll of fifteen cents is charged for automobiles, and

you pay this as the visible sign of your freedom from the city.

After leaving Capitol Hill (descending which you get a good advance view of the upper Hudson valley), lower State street is poor going, but Broadway is



worse and the passage over the bridge is anything but a pleasure. However, you can look across the river, the big boats anchored on either side suggestive of the commercial importance of the upper Hudson, then up over the railroad tracks beyond, down the valley and over

the hills that stretch away in front, suggestive of what there is ahead.

You follow the old Post Road six or seven miles from Rensselaer to Schodack Center, gradually leaving the Hudson for a more inland run. Schodack Center, being the road junction between the Albany-Pittsfield and the Albany-New York routes, enables one who desires to do so, to make the run from Hudson river points to the Berkshires without touring the Capitol City at all. Be sure to keep the inland road and do not go down the river front to Schodack Landing. During the wet seasons the river route is sometimes overflowed, at times even the traffic of the New York Central Railroad is interfered with while, thanks to the wisdom of the early pioneers, this inland highway is passable in the wettest of weather.

At Schodack Center, a fine, well-kept highway branches off to the left marked "Nassau;" here you say good-bye to the route to Poughkeepsie and New York and take a direct course to Pittsfield, the heart of the Berkshires. At the same time you leave entirely the route of the B. & A. Railroad, which dips down to Kinderhook and then up to Chatham. However, feeling sure of your car, you do not mind the temporary distance from the steam highway, and it is only a few miles to the hamlet of Nassau. If you stop at a certain store in this place and go in to make inquiries, as we did, you will see a sign on the wall, "No swearing or loud talking allowed in this store." It is a queer little village near the border line between New York and New England, and partaking of some of the rural characteristics of each.

From the crossroads at Nassau, it is 11 miles to Albany and 28 to Pittsfield, or 39 in all, which is 18 miles shorter than the railroad mileage between the same points. Go straight ahead through this place, turning neither to the right nor left, then out along the winding road to Brainard. As you go through Nassau you will notice that this is a little "hub" of routes, with connections to a lot of places of which you probably never heard before. Even now signs of the nearing Berkshires appear, and the whole country is covered with a veritable maze of crossroads. One curiosity is the New England pump, of which there are from one to a dozen specimens in every town, no matter how small.

The tourist, especially in the fall, will be much interested in some of the people he sees along the highways. Hunters and fishermen are not only noticed in considerable numbers, particularly on Sundays, but the crack of the hunters' rifles reverberates almost constantly on the air. The traveler on an autumn afternoon will often meet twenty or thirty parties, of two, three or more persons apiece, coming home from a chestnut-

ting expedition, showing that civilization has not entirely destroyed the outing proclivities of our ancestors, or done away with the chestnuts. A continuation of the Green mountains separates the valley of the Hudson in New York State from that of the Housatonic in Massachusetts, the entire range is heavily wooded, insomuch that the view of the way ahead is often lost as the road winds its way through a bit of forest.

It is a fair country ride all the way from Nassau to Brainard and then from Brainard along with the Lebanon Valley Railroad, now a part of the Rutland Railroad system. Being narrow in spots, it gives the unaccommodating farmer a chance to bother the automobilist now and then, and at the same time it gives the motorist who desires to take advantage of it a chance to return the compliment. Three miles out of Nassau you turn right and go down past an old paper mill for a better road through to Brainard; then pass Brainard station over on the right.

miles to Stephentown." This place is on the northern route from Pittsfield to Troy; in other words, the Pittsfield-Albany and Pittsfield-Troy routes are only six miles apart at this place, though from now on they grow farther and farther apart.

Just beyond, the road rounds the shoulder of a long hill, spots on which are apt to be wet for days after a rain on account of the overhanging branches keeping the sun away from the surface. After descending this hill, the Lebanon valley opens up well ahead of you, and there is probably the temptation to increase speed. It is an apple country, with many cider mills at work throughout the fall months, but amid surroundings which leave you in doubt as to the quality of the real article. Roads gradually improve as you journey eastward, with evidence of careful work; for instance, straight edges rather than ragged edges for roadsides. Going into New Lebanon the stranger will inevitably think that he has reached Lebanon

costumes, riding about in the street cars.

"This has been largely a necessity, both from the hilly nature of Rio de Janeiro, many of the most beautiful residences being quite inaccessible by carriage, and also because of the rough pavements which have existed heretofore. At present, however, miles of asphalt pavement exist, and more is being laid as rapidly as the work can be done.

"One of the most beautifully paved drives in the world is being completed along the bay, and the demand for smart, modern vehicles for pleasure and general needs is bound to increase."

As all the great touring and racing events of the past two years have been won by cars equipped with Truffault-Hartford Shock Absorbers, there was no great surprise at the showing of the winning cars in the recent Glidden tour, which were equipped with these devices. Percy Pierce, with his Pierce Arrow, won the event last year with Hartford



AUTOMOBILES ARE IN USE ON MANY A FINE PRIVATE ESTATE

As soon as you pass this station you begin to get into the Lebanons, of which there are four, West, Center, New and The Springs. Signboards become more frequent as you approach the State Line; they are not made of fancy material, but they are in the main correct, and that is what the traveler principally needs. There are a few deserted homes in this fine country, which would seem impossible were the evidence of one's eyes not the full proof. The Lebanons are noted far and wide for their well-kept condition; many of the hilltops are cut into square or rectangular lots by well-built stone walls or fences made of small trees.

Shortly after West Lebanon you run along a cool bit of woodland with a brisk-flowing creek on either end. At the signpost marking "5 miles to Lebanon Springs," a section of flatland opens to the left and a sign reads "6

Springs, which are in reality a little further on.

(To be continued.)

Autos Will Be Wanted in Brazil

Consul-General George E. Anderson states that it seems quite probable that one result of the wave of municipal betterment which is passing over Rio de Janeiro will be the increased use of carriages and similar vehicles. He explains:

"At present few carriages are used in the Brazilian capital, street cars, tramways, or 'bonds,' as they are called, supplying the means of locomotion and transportation for all classes of people for almost all purposes and places. It is the usual thing now to see ladies in evening costumes, gowned for the theater or for dinner, with all the embellishments which go with the most up-to-date

suspensions on the car, and this year all three Pierce cars that started finished with perfect scores, whereas, other makers of cars, which had two or three machines entered, some of them without shock absorbers, were unable to pull through more than a single machine. Everyone on the tour agrees that shock absorbers played an important part in preventing the breaking of springs and tire troubles, besides adding speed. There were many cases of bent axles and broken springs, but not one on a car equipped with Truffault-Hartford Shock Absorbers.

Preoccupied

Telephone—Hello! Can Mr. Goggles have his automobile this afternoon?

Garage Keeper—Not very well. You see it is the only one in a condition to run about.

Frank Daniels, Motorist

Some of the Comedian's Wild Adventures Told in an Interview

By M. Worth Colwell

Many people think that Mr. Frank Daniels is more comical off the stage than he is on. He is certainly funny to watch while he is fussing around his motor car, trying to get things into shape, but he says that is because he was born on Friday. One evening recently, I stopped in to have a little talk with Mr. Daniels in his dressing room, between the first and second acts of "Sergt. Brue." He was combing out his property wig when I asked him what he thought of motoring in general. "Well," he replied, pausing a minute, "my Public Opinion of motoring is about the same as Everybody's. When I say Everybody's, I do not mean Everybody's Magazine. People think this sometimes, because it is known that I have a very Literary Digest-ion—whatever that is." (This string of talk was hard to catch accurately.) "But," he continued, "I enjoy it immensely—that is the word, immensely. People always enjoy things 'immensely.' My car is a White Steamer—makes white steam, you understand. Please don't laugh in scorn at what I say; I am doing this interview business to help you." Here he resumed his currying.

"Say, do you know, I had the most awful time coming down to-night through Central Park. I had De Wolf Hopper with me. Of course, you know Hopper just loves flowers, only he was afraid that some of the flowers in the park were wild flowers and might bite him; but we went much too fast for that. O yes, muchly. Well, do you know, we had every cop in that park, who was not asleep, after us? Not because we were exceeding the speed limit, but on account of my honk-horn tube. Its natural voice is a beautiful tenor; just as tenor as mine is sub-bass. It seems that the tube sprang a leak and would only cough; sort of grunting cough—like that, and all the police thought that someone in our car was getting strangled. Then when we got to the Grand Circle we almost ran into Dr. Darlington's motor. I guess it was the Doctor himself, because he made us stop right there. You see, when he heard the horn he thought it was Hopper coughing, so he got hold of Hop and made him hold out his tongue for examination!"

I expressed my sympathy for Mr. Hopper and Daniels went at it again.

"Hopper took some friends in his car last week and I took a bunch of pals in mine for a run out on Long Island. Of course, I always tell the truth, you know, so I told them all that my car was the best—best by far. Well, could you believe it, that reluctant child of a car deliberately squatted right down,

right while I was praising it? And not one of the crowd would help me fix it—just laughed haw-haw, thus-wise. O, but I had my revenge, though! I got the dear old soul started in a minute, and while Hopper's crowd were still 'rubbing it in' his car went on the vacation list. And do you imagine I got down to help them? Not on your de-naturalized existence! I just sat on the 'bread can' on the front of my car and led the rest (except Wolfe Hopper) in the grand chorus of 'The Old Oaken Horse Car for Mine!'"

Here Mr. Daniels gave a semi-imitation of the chorus.

"Then the gang got started once more

bars! Get me a notary quick, I'll swear to it!"

But he did not have time, for we heard the chorus ladies singing the first bars of his entrance song and he was in a hurry to get out and get over those bars—very much so.

An Elastic Solid Tire

The St. John Tire Co. are meeting with great success in the introduction of their non-puncturable solid rubber cushioned automobile tire, which combines all the advantages of a solid tire with the resiliency of the pneumatic tire. The material is the very best, and the tire is made of one piece of solid rubber measuring $2\frac{1}{4}$ ins. in thickness by $2\frac{1}{4}$ ins. in breadth. The tire is lightened and its resiliency greatly increased by a series of holes seven-eighths in diameter and



FRANK DANIELS IN HIS WHITE STEAMER

and we struck a road with a big white gate at the end of it. I bet Hop that my machine could jump that gate. You know, lately I have been giving my car that new 'Kangaroo Gasolene'—makes it jump fences and carry its tools in pouches. Well, as soon as I wanted to bet that my car could, Hopper wanted to bet that it couldn't, but was willing to wager that his old truck could. Thereupon the bet was thereupon—a box of cigars for the first car that could make the jump. So then yours very respectfully withdrew a little brown flask—one of these Hunting-case flasks-of Hunter. And then what? Why I just poured a few droplets of that delicious liquid into my gasolene tank, and would you believe it, my car was the first over the

nearly $2\frac{1}{4}$ ins. apart. These holes also afford an opening for the nuts penetrated by brass bolts which hold the tire firmly to the rim of the wheel. The tire possesses many advantages, being not only non-puncturable, but pumping and leaky valves with all their vexing annoyances are done away with. Their solidity also renders them less likely to carry or throw mud, while skidding is reduced to a minimum, while the tire runs free under the heaviest loads. The tires are adapted to any size or weight, and all that intending purchasers have to do is to state weight of machine with passengers, size of tire used, whether single or clincher rims, and whether the wheels are wooden or wire spoked. The company guarantees satisfaction.

State Automobile Laws

We present in a condensed form the laws affecting the running of automobiles in a number of States, and it may be stated in a general way that the number plates furnished by the Secretaries of the various States, or other officials, must always be conspicuously displayed on the cars. Certificates of registration and chauffeur's licenses should always be carried by owner or driver, as they may be called for by local authorities anywhere at any time. It will be observed that in the States selected in this issue the chief variety in the laws is in the important matter of speed limit, which varies from four to ten miles in cities and from nine to twenty-five miles in the open country. It may be observed by those familiar with these ill-assorted legislative enactments that there is a greater degree of similarity in the laws this year than formerly, and as time advances and prejudice against the use of the automobile disappears, doubtless many of the absurd enactments will also pass away, and a complete similarity of regulations become established, as in the case of general horse-drawn vehicular traffic.

Alabama

Resident county judges issue certificates on registration, fee 25 cents, not transferable. There are no special laws affecting non-residents, and no laws in regard to number or lamps. Speed is limited to 8 miles an hour and 4 miles per hour at dams and causeways not over 20 feet wide. Penalties range from \$20 to \$100 for first offense, and from \$50 to \$200 for subsequent offenses, or thirty days to six months' imprisonment.

California

For a fee of \$2 the Secretary of State issues numbers and a non-transferable certificate. Visitors from other States can use their own numbers temporarily. Two lamps, white, after sunset, must be displayed in front and one red light reverse. Speed must always be reasonable; the limit being 10 miles per hour in populated districts, and 20 miles per hour outside of municipalities. First offense, fine not exceeding \$100; subsequent offenses, \$100 to \$250, and imprisonment for 30 days.

Connecticut

The Secretary of State issues numbers; fee, \$1. Cars rented are not charged special fees. No regulation in regard to lamps. Visitors using their own State numbers are allowed 15 days in each year. Speed not to exceed 12 miles in cities; 15 miles in the country. Fines, \$200, or under, or 30 days' imprisonment, or both, for overspeed.

Delaware

The Secretary of State furnishes numbers for \$2. Cars must show two white lights in front after sunset, and one red light in rear, showing number. Non-residents in the State are exempt from local registration for 48 hours. Speed limited to 8 4/7 miles in cities, and 20 miles in open country. Fines include \$50 for racing or wagering, and \$100 for illegal display of number or other offenses.

District of Columbia

Auto drivers must qualify before District Examiners. No fees required. Cars must show two white lights in front and one in rear showing red and white light. Credentials of non-residents are sufficient for sixty days. Four miles per hour rounding corners in Washington, six miles in cross streets, twelve miles where there are no tracks, 15 miles in the country. Fines from \$1 to \$40 for each offense.

Florida

The Secretary of State issues a certificate for a fee of \$2. Two lamps must be shown after sunset. Non-residents exempt for 30 days. Four miles an hour at curves and bridges, otherwise reasonable speed. Fines from \$25 to \$250, or imprisonment from 10 days to 60 days.

Illinois

Secretary of State issues numbers. There are no State provisions in regard to fees or numbers or lamps or non-residents. Fifteen miles per hour is the State limit of speed, for violations of which fines or imprisonment may be imposed by the local authorities, who should be consulted by visitors entering the State.

Indiana

Secretary of State issues numbers. Fee, \$1. Cars must show one or more lamps, one showing white forward, and a red light reverse. Own State number, if displayed, is sufficient. Speed must not exceed eight miles in cities, twenty miles in the open country. Fines must not exceed \$50.

Iowa

Secretary of State issues numbers. Fee, \$1. One or more white lamps must be shown in front, and one red light in reverse. Own State numbers displayed is sufficient. Speed must not exceed ten miles in cities and twenty miles in the limit in the open country. Fines for first offense must not exceed \$25. Second offense, \$25 to \$50, or imprisonment for 30 days.

Kansas

The local authorities should be consulted, as there are no State provisions in regard to numbers. One or more

white lights must be shown after sunset. The speed limit is 10 miles per hour in populated sections, and 20 miles per hour in the open country. Fines not to exceed \$100.

Kentucky

Local authorities should be consulted, as there are no State provisions except in regard to showing a white light in front and red in back, and speed limit must not exceed 15 miles per hour in the open country, and 6 miles at crossings, bridges or curves. Fines from \$10 to \$100.

Maine

Secretary of State furnishes two number plates. Fee, \$2. Must carry a lighted lamp after sunset. Non-residents must display their own State number in front and rear of car. Speed limit, 8 miles an hour in cities and towns; 15 miles per hour elsewhere. Fines not to exceed \$50, or imprisonment not to exceed 10 days.

Maryland

Secretary of State issues certificate. Fee, \$1. Lamps showing two white lights and one red light after sunset. Non-residents must register on entering the State. Speed limit, six miles per hour at curves, crossings or built-up portions of cities. Elsewhere the limit is 10 miles per hour. Fines vary from \$20 to \$50.

Massachusetts

The Highway Commissioners furnish license for operator and register cars. Fees, \$2 for registration and \$2 for license; 50 cents for renewal. Private operator's license continued indefinitely; chauffeur's license good for one year. Must show lights with registered number after sunset. Non-residents exempt for 15 days. Speed limit, 10 miles an hour in cities; 15 miles in open country. Fines, from \$25 to \$100.

Michigan

Secretary of State issues seal and certificate. Fee, \$2. Two lamps, with white light in front; one red lamp in rear. Registration number of non-resident's own State sufficient if law is same. Speed limit, 8 miles per hour in cities; 25 miles in open country. Fines, from \$25 to \$100, or imprisonment from 10 to 30 days.

Minnesota

The State Boiler Inspector issues licenses. Fee, \$2. Cars must show at least one lighted lamp after sunset. Non-residents same as residents. Speed, 4 miles an hour at all crossings, 8 miles in cities, and 25 miles per hour elsewhere. No special penalties provided, but general laws provide imprisonment for not more than 3 months, or fine not over \$100.

Of Personal Interest

Representative Charles Curtis, of Kansas, is the only man in Congress who has Indian blood in his veins. One of his remote ancestors was a noble red man.

James S. Harlan, recently appointed a delegate to the Pan-American conference, was known in his younger days as "the handsomest man in Kentucky."

Robert Lee Morrell, of the Automobile Club of America, has been appointed chairman of the good roads committee of the New York State Automobile Association by President Oliver A. Quayle, of the State organization.

Mr. Fred P. Brand, formerly manager of the Chicago branch of the Apperson Brothers Co., has become sales manager of the Autocar Company, at Ardmore, Pa.

A party from Newark, N. J., consisting of Mr. and Mrs. W. R. Dunton, Robert W. Dunton and Harlow Dunton, has been touring different New England States.

Mr. and Mrs. William Crow, of Rye, N. Y., are enjoying a two months' automobile tour which will extend as far as Denver, Col. In the party are Miss Grace Coar and Miss Haine, of Rye, N. Y.

James Couzens, secretary of the Ford Motor Co., Detroit, has been elected a director of the company and also chosen for the position of treasurer, made vacant by the withdrawal from the company of A. V. Malcomson.

Thomas Nelson Page is a quiet man who says little, yet his house is known in Washington as the place where the host has the most exacting ideas as to the qualifications of his guests.

Among automobile tourists in New England have lately been H. C. Loveland, Ellington; F. C. Waters, Boston; L. H. Bullard, Bridgeport; A. W. McGee, Auburn, N. Y.; Frank E. Adam, Jr., Dunkirk, N. Y.; A. H. Powell, Washington, D. C.; and Mr. and Mrs. E. L. Smith, New Haven.

Thomas Guffey, a son of Col. J. M. Guffey, of Pittsburg, Pa., has received his new 45 H. P. Stearns, which is finished in a rich black with gold striping. Mr. Guffey is delighted with his new car and has started for an Eastern tour, acting as his own chauffeur, having fully mastered the simple driving mechanism.

President Becker—His Honor the Mayor

We believe there is only one automobile club in the country that has a city mayor for a president and that is the Milwaukee Automobile Club, his Honor Mayor Sherburn M. Becker being president. We are very much pleased to enjoy the privilege of publishing the portrait of the President of the Milwaukee Automobile Club, for he is the type of man we delight to praise and honor. Mayor Becker is one of the young Americans who has taken to public life from a sense of duty, the kind of man who becomes the salt of the earth, that imparts life



SHERBURN M. BECKER
Mayor of Milwaukee

and energy to the common clay. The Milwaukee Free Press says:

Who is the new mayor? And who is this Sherburn M. Becker the people have placed at the head of that municipality? He is a native of Milwaukee, born about twenty-nine years ago. He attended the public schools of the city, and later went to Boston where he took a course preparatory to entering Harvard. After leaving the latter institution of learning he traveled abroad, visiting nearly all the countries of Europe, as well as the holy land and Egypt. On his return to Milwaukee he entered the Marine National bank, of which his father, Washington Becker, is president, and obtained a general knowledge of the business. He then went west, entered into the spirit of the country, became

a horseman, a rifle shot and learned to rope a steer with the best of them, taking part in a celebrated roping contest at Cheyenne.

Back to Milwaukee, in 1902, he decided to try his hand in politics, announced himself as a candidate for supervisor in the First ward, went out after the election and secured it. As a member of the board of supervisors he started a series of investigations which resulted in unearthing a vast amount of fraud, and saved the country about \$30,000 a year in the single item of printing. He is the president of the Hansen-Schmitt Tobacco company. Mr. Becker married Miss Irene Smith, granddaughter of ex-Gov. William E. Smith, daughter of Ira B. Smith and they have two children. They have a handsome home on Prospect avenue.

A. A. Wiseman, of Pittsburg, Pa., is touring the East in his 45 H. P. Stearns. This car has already done some tall touring, holding the record between Pittsburg and Youngstown. Mr. Wiseman is accompanied by Mr. John H. Stubbs, of the Fort Pitt Auto Co.

Mr. and Mrs. Wait Talcott, of Rockford, Ill., accompanied by Mr. and Mrs. Walter Forbes, returned from a long automobile trip after an absence of a month or more. Mr. and Mrs. Talcott went from Rockford to Philadelphia; thence they went to New York, and from there made a number of trips, including one pleasant tour in the Berkshires.

Many New York automobilists have been cooling off at Atlantic City, N. J., during the heated term that sent so many people searching for cooling spots. Henry George, of single-tax fame, was there as well as Ochs, the newspaper man, in a Mercedes car. Among the multitude we mention Mr. and Mrs. La Grove, Pope-Toledo; J. D. Dillard, J. D. Smith, Franklin; Dr. E. Thomas, Ford; A. B. Williamson, C. G. V.

H. T. Newell, of Wilkesburg, Pa., in his 28 H. P. Oldsmobile and five passengers, made an extended tour from Pittsburg to Boston and New York, having made the run over East in three days, which is remarkably fast time for any machine of any horse power. Mr. Newell was arrested under the drastic laws of New Jersey, having to pay a fine of \$10. They got him at Hackensack, where the officials making catches under the new automobile law are viciously exacting.

An auto party which made a fast run from New York to Hartford last month was made up of Mrs. W. H. Fitch, Norwich; Miss D. A. Smith, Newberry, N. Y.; A. J. Bailey and W. D. Fitch, Norwich. The party will tour through New England. Other auto parties were those of Mrs. T. E. Hoggan and Mrs. T. H. Morgan, New York; Edward Rhine and Percival R. Rhine, New York; and Mr. and Mrs. G. F. Dunham, Newport R. I. Mr. and Mrs. Dunham have started on a trip by auto to Atlanta, Ga.

Mr. J. R. Potter, accompanied by a party of friends, have gone on a long automobile tour, which will take him into Canada before he returns. The itinerary will take them through New York, Boston, the White mountains, Bar Harbor, and thence to Montreal and Quebec. On the return the autoists will stop at Lake Champlain, Lake George, Saratoga and the Delaware Water Gap.

W. S. Gehr, who is making a 10,000 mile tour in a Glide car, sends a letter to a friend in New York announcing his arrival at Medicine Springs, Mont. He will not go through Yellowstone Park, as he cannot get gasoline en route. However, he says that automobiles are not allowed in Yellowstone Park. Mr. Gehr expects to complete what should be the longest pleasure tour ever undertaken in this country.

William Grimes, late territorial secretary of Oklahoma, has ordered a Northern touring car, and he has come to Detroit to take it home on its own wheels. A great share of this trip will be in the nature of pioneering, as there is no record extant of a trip across the Ozarks in Arkansas by automobile. Mr. Grimes knows the territory well and expects to know his car by the time he strikes the hard going.

Joseph B. Taylor, of Albany, has just received the cup presented by President A. J. McClure of the Albany Automobile Club for finishing the recent six-day reliability run of the club from Albany to Boston and return with a perfect score. Mr. Taylor drove a Locomobile. President McClure's 60 H. P. Fiat also finished with a clean score, but as he presented the cup, he did not allow his record to stand for the trophy.

Harry Cunningham, erstwhile racing man, now manager of the Ford Motor Company, Cleveland branch, calls attention to a remarkable resemblance between Mayor Tom L. Johnson, of that city, and Barney Oldfield, the speed king. In a recent letter to Henry Ford, Cunningham says: "If you were to meet Mayor Johnson driving his Model 'K,' you would surely call out, 'Hello, Barney!' Mayor Johnson looks, acts and drives exactly like Barney." His official

cloak alone prevents him having as great a reputation as a dare-devil driver as his racing double.

Among people who have visited Boston within the month in the course of automobile tours were: Mr. and Mrs. W. E. Scott, New York; Mr. and Mrs. E. J. Durban and Miss Mary E. Durban, and Miss James, Philadelphia; Mr. and Mrs. Melville B. Fuller and Paul Selchow, New York. Guests were W. E. Hawkins, Atlanta, Ga.; Henry Groove, Philadelphia; Mr. and Mrs. D. C. Pope, New York; Albert H. Moore, Providence, R. I.; H. A. Hamilton, Springfield, Mass.; Clinton Spencer, Suffield; and W. D. Boswell, Cohoes, N. Y.

Through the efforts of Mrs. W. O. Williams, the wife of a prominent automobilist, of Tacoma, Wash., the automobilists of that city are arranging to have an automobile Orphan's Day similar to what has recently been held in New York. Mrs. Williams has been reading in the automobile press of the general growth of orphans' day in the East, and she has made a strong appeal to the women of Tacoma to give their co-operation in making an orphans' day outing a success.

Mrs. Mary Ellen Lease, the noted spiritualist, is delivering a series of lectures in Indiana, and traveling through the State in an automobile.

Mr. John Campbell, of St. Thomas, Ontario, president of the British Land Company, also president of the noted John Campbell Flour Mills, at St. Thomas, has just purchased a large handsome Aerocar finished in wine color. After spending a few days at the factory receiving pointers about running the car, he went to the ferry wharf at Detroit, crossed over to Windsor, arranged matters with the custom house officers and in fifteen minutes had started on a tour through Canada. Mr. Campbell was accompanied by C. W. Ellis, also of St. Thomas, who is well known in the Canadian automobile field, having been identified with it for the past six years.

W. J. Thomas, of Birmingham, Ala., made a run recently in a Thomas car from Birmingham to Atlantic City, N. J. He reported that some of the roads used might be rebuilt with profit and pleasure for those using them. Among others that made long trips to reach Atlantic City were: C. W. Budd, Paducah, Ky., Buick; Joseph H. Thomas, Washington, Franklin; James Rose, Lancaster, Royal-Tourist; H. Alden, New Haven, Conn.; F. S. Bradley, Cincinnati, O., Pope-Toledo; Mrs. Jennie E. White, Pittsburgh, Packard.

Other autoists were: J. Otzell, Camden, Rambler; T. C. Woodruff, Devon,

Pa., Royal-Tourist; Samuel R. Seyfert, Reading, Pa., Pope-Toledo; M. E. La Lake, Princeton, Reo; A. L. Carn, Overbrook, Acme; C. H. Gorley, Uniontown, Franklin; W. A. Johnson, Patrob, Pa., Cadillac; W. B. Watham, Summitt, Pa.

Extraordinarily successful runs of automobiles by private tourists are now so common that they are rivaling the performance of the Glidden tourists. Among notable runs recently brought to our attention one made by Dr. Floyd S. Crego, of Buffalo, deserves special mention. He left Buffalo on July 3 with his sons and a chauffeur, making a party of five. They went to the highest point of the west side of the Adirondacks near Benson Mines and Wanakeena. They went up without any trouble whatever, something over 2,000 feet, the most of the ascent being made within the last 40 miles. He reports that they did not use an unusual quantity of gasoline or oil and had a delightful time and not one minute's layout. They went 23 miles further than any automobile was able to go this year and three miles further than any automobile has ever been.

There was a tremendous rush of automobiles to Atlantic City, N. J., on the first days of July. Naturally, Philadelphia motorists were most in evidence, but other cities were well represented. Among prominent people from Philadelphia were Samuel T. Rea, vice-president of the Pennsylvania Railroad, who rode in a Rocket-Snyder car. Others from Philadelphia were: Dr. Munyon, in a Locomobile; Thomas McAdoo, Auto car; James F. Hope, Apperson; R. L. Jenks, Auto car; J. Pleves, De Dietrich; Norris E. Henderson, electric car; George B. Bouton, electric car; E. S. Thoroughbred, cycle; J. Harkness, Locomobile; D. Cooper, Locomobile; H. M. Plitt, Franklin; Thomas B. Hunter, of the Acme Tea Company, Mercedes; P. Elmer Weitzel, lumber dealer and hotel man, Pope-Toledo; Godfrey S. Mahn, Pope-Toledo; J. H. Bromley, Pope-Toledo; J. S. Brown, Peerless; David L. Ward, paper manufacturer, Renault; A. Lind, Reo; L. A. Brown, Reo; T. C. Fuller, Simplex; H. Breme, Thomas touring car; J. Horner, Thomas; W. R. MacMullin, Pope-Toledo; T. A. Vetterlen, cigar manufacturer, Pope-Toledo.

Col. Greene's Strenuous Automobileing

Col. W. C. Greene, of Cananea, Mexico, recently visited New York City on a business trip when he paid very interesting attention to the progress in automobile making. Colonel Greene is a most enthusiastic automobilist and declares plainly that the automobile saved his mining interests in Mexico.

since it made intercommunication prompt at low cost. Colonel Greene lives 60 miles distant from his principal mines and the journey used to be made



MRS. LOUIS T. ROENITZ
In Chicago-Aurora Elgin Reliability Run

with difficulty in a day on the deliberate mule. Now the trip can be made so quickly that the Colonel frequently goes to the mines in the morning, spends three or four hours there and then returns home in good time for dinner. Mr. Scarritt, who has been over the ground, says that Colonel Greene has made more strenuous use of the automobile than any man living. No road is too rough and few hills too steep for Colonel Greene's auto. He has a Pope-Toledo and a Panhard doing remarkable feats of travel all the time.

A noteworthy feature of the reliability test run of the Chicago Automobile Association, made from Chicago last month, was that there were three lady drivers. They were Mrs. Louis T. Roenitz, who steered a White steamer runabout; Mrs. F. R. Draper drove a White steamer touring car; Miss K. D. Switz managed very skilfully an Autocar touring car. All the lady drivers displayed nerve and skill.

Dr. Leslie D. Ward, of Newark, N. J., with several friends has been touring in New England. They went to the Berkshire Hills and took in Massachusetts, New Hampshire, Vermont and Maine.

King Leopold is building an automobile road along the coast of Belgium at his own expense. He will draw on his private purse to the extent of \$2,000,000 for the purpose.

Secretary Taft is a great man mentally and physically. It is said that when he was riding on a street car in Washing-

ton one day during the heated term that he rose and made room for three ladies.

Mrs. A. B. Leach, of South Orange, N. J., and family, have started in a 60 H. P. Mercedes car for California. The party will make a variety of side journeys en route, and will make the tour by easy stages.

P. Seery has been chosen secretary of the Motor Car Company of Newark, N. J., having become financially interested in the company. Mr. Seery was for several years connected with the New Jersey Tube Company.

Among the licenses issued in Philadelphia one day lately, permitting people to run automobiles in that city, two were to ladies, Estelle G. Dunk, Lansdowne, Pa.; and Helen P. G. Dodge, 5735 Pulaski avenue, Philadelphia. They passed the Bureau of Boiler Inspection without quailing.

H. D. Ryus, manager of the White Sewing Machine Company's interests in Los Angeles, Cal., has been visiting New York and filling Automobile Row with amazement with his true tales of motoring on the Pacific coast. Mr. Ryus sold 67 White steamers this year. The only thing he found on his travels that the Pacific coast could not equal was Coney Island.

Newark, N. J., has sent out many automobile tourists during the past month. Among the people who have left toil and heat behind to cool off in different states are Mr. and Mrs. J. F. Noll, Harry Tonks and party, Willis Smith and family, L. R. Frisby and family, C. S. Cooper and family, Frederick R. Pratt, president of the Associated Automobile Clubs, with party, H. M. Austin and party, W. S. Fairchild with party, H. Stacy Smith, and a host of others.

Mr. Charles A. Moore, of New York, whose portrait appeared in our July number, bought a Fiat automobile about two years ago and was so well pleased with the service rendered that he has just purchased another of the same make. Mr. Moore, who is head of the firm Manning, Maxwell & Moore, of Liberty street, is a great traveler, and he says that the use of an automobile has doubled the pleasure of going about the world.

Mr. and Mrs. J. B. Mallers, Sr., and Jr., of Chicago, are now touring through the New England States. The junior Mallers is driving the car, a Columbia. The trip will last about two months. Mr. Mallers has already done 9,000 miles this year. Other Chicagoans, too, are on the road, it being the inten-

tion of the Van Sicklen party, which took part in the Glidden tour, to drive back to Chicago in the Apperson, which will make something like 3,000 miles since leaving July 5.

Three women were given licenses in Newark, N. J., to operate automobiles in the State. They were Lena M. Gilmore, of 119 Prospect street, East Orange, who has driven an electric runabout for the past three years, during which time she has traveled about 1,500 miles. Carolyn Decker, of 78 North Fullerton avenue, Montclair, has driven a 5 H. P. runabout 3,000 miles in three years. Ethel H. Wilson, of 19 East Seventy-first street, New York, is the other driver. She is a new beginner, however, having driven a 35 H. P. car for two months.

Guy Vaughan

Guy Vaughan, who was first in the Crawford Notch hill climb, is probably the youngest driver of automobiles in the professional field. He was born at Bayshore in 1884, and his first appearance in racing was in 1902, from which time he has established a number of records that are still undefeated.

At the solicitation of F. B. Stearn, the concern of Wyckoff, Church & Partridge sent Vaughan to Cleveland to run the 30 H. P. car just completed by their company, from that point to Bretton Woods, where it was to enter the hill-climbing contest. The distance covered was 806 miles, and was accomplished in record time, despite the fact that a number of accidents marked the way, culminating in the upset that occurred on the hill preparatory to the event,



GUY VAUGHAN

where the car skidded on the soft sands and tore into an embankment, which, for a time, caused many to consider the car out of the contest.

Vaughan's practical knowledge of mechanism served him in good stead, and with the aid of a country blacksmith, repairs were undertaken, with his supervision, and on the day set aside for the race the popular young driver fixed a record on Crawford Notch that will likely remain for years to come, compassing the distance of one mile and four-tenths in 2 minutes and 48 seconds.

Great credit is due both the driver and car, but Vaughan's display of nerve on this dangerous hill earned him many new admirers, who realized the danger and nerve required to operate the machine.

ditched, there was no hesitation about calling on Tom and his Packard for assistance.

When the owner and driver of a certain car of well-known make, owing to the unexpected shortage of gasoline, was stranded on the steepest grade of a very difficult hill, he was greatly pleased when he picked up the end of a rope lying on the road, to find, most wonderful to say, that the Packard car, with Tom in it, was on the other end of the rope.

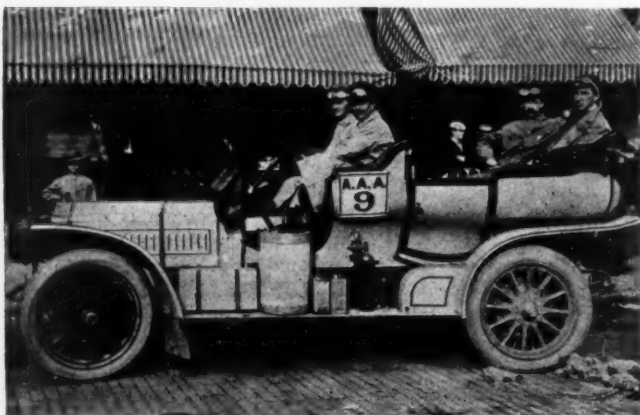
Thus the gentleman in distress was helped along until it was possible to ob-

an error, as the Packard Motor Co. entered no cars whatever.

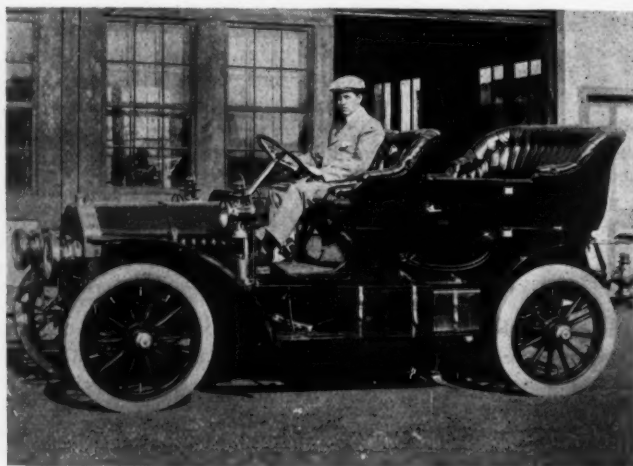
One of these two cars was entered by Mr. F. J. Pardee, of Chicago, while the other, entered by Mr. G. G. Buse, of Buffalo, was driven by an 18-year-old amateur driver throughout the trip and finished with a clean score.

Mr. A. L. Kull, New York agent for the Wayne car, ran a Model "F" from New York city to Bretton Woods with a clean record. He drove the Model "K" in the hill climb at Bretton Woods and telegraphed that the car came in fourth and only a few seconds after the winner.

Many of the automobilists who took part in the Glidden tour are enthusiastic in their praises of Judge James B. Dill, of East Orange, N. J., who has a summer residence in Maine near Rangeley Lake. The tourists made one of their



GEO. M. DAVIS IN 50 H.P. THOMAS CAR
Perfect score in Glidden Tour



CHARLES H. BURMAN DRIVING MODEL 14 PEERLESS
Perfect score in Glidden Tour

Friendly Tom Fitch

Yes, Tom Fitch is everybody's friend. This remark, uttered by one of the most prominent officials of the A. A. A. during the Glidden tour was only one expression of what a number of people found out at some time during the tour.

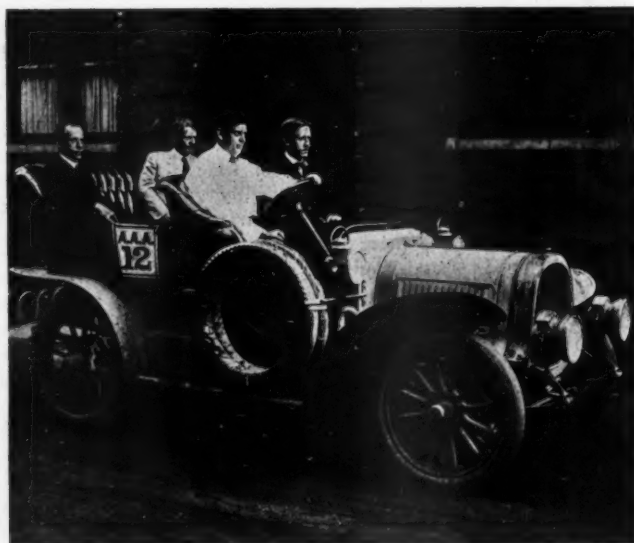
The writer, however, will go one better and say that Tom Fitch and the Packard car were everybody's friends.

If a car, by one of those unaccountable accidents that sometimes happen to the best of drivers, should become

tain a supply of gasoline from the tank of Tom's car.

His name probably will never be learned from Tom, his willing assistants, nor the Packard car, for they waited by the roadside until so great a distance was between the two cars that the most suspicious person would never think that anything out of the ordinary had occurred.

While the term Packard Team has been applied to the two Packard cars that contested for the Glidden Cup, it is



W. C. WALKER IN A POPE-HARTFORD
Perfect score in Glidden Tour

halts near the residence of Judge Dill and he seemed to throw everything else aside to help the wanderers. Judge Dill is a member of the Touring Committee of the A. A. A. and he arranged to hold the meetings in his house, where he made all the tourists welcome.

Flub—The Chicago woman made a queer break at the wedding. Dub—What did she do? Flub—Wished the bride many happy returns of the day.—Philadelphia Record.

The Union Automobile Garage Company, of Akron, \$5,000, was incorporated by E. D. Valentine, Lottie G. Martin and Claude L. Calbetzon, Fred E. Hilbert and George S. Cox.

The Automobile Manufacturers' meeting called at Niagara Falls has been indefinitely postponed.

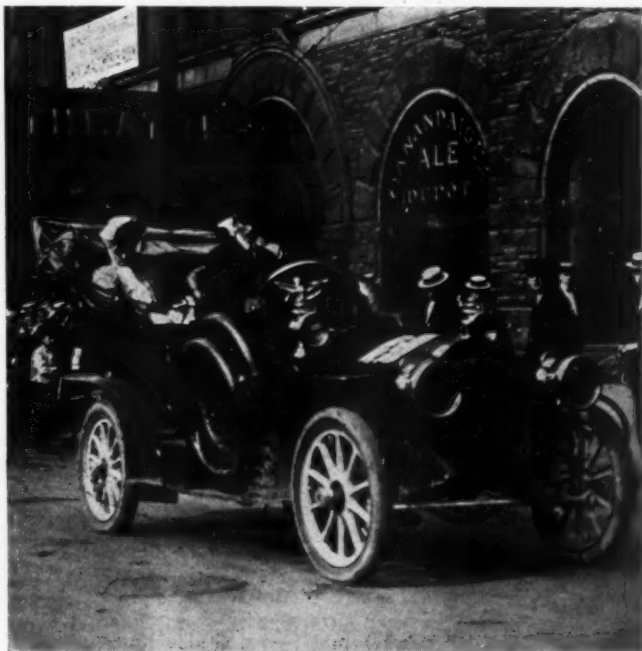
Mobilettes

Drawing on the Generosity of Automobilists

Peoria, Ill., is noted principally for the quantity and quality of its whisky production, but it has some automobilists who have original ideas concerning the duties of motor car owners. In preparing to entertain visitors coming to the city in connection with an encampment of the Sons of Veterans, Recorder Wasson sent letters to all automobile owners asking them to donate the use of their machines for a day each so that they could be used to carry the visitors about the enchanting streets of the distillery metropolis. As a stimulant to the benevolence of the automobile owners Recorder Wasson said: "It is the established custom in New York City among all owners of autos to allow

carry the child to the hospital, screaming loudly all the while. The driver bade her get into the car and he put on full speed and headed for the hospital. An intelligent constable, however, jumped to the conclusion that here was another "motor car outrage" and he incited several cyclists to pursue the car, while he followed as best he could, thinking the automobilist was abducting the "respectable female and her child," as he later explained. Ultimately the automobile drew up in front of

Mr. Thomas took with him a stock 50 horse power Thomas "Flyer" and before his return to this country it will be entered in some of the speed contests held at the foreign beaches, in the latter part of July and August. Mr. Thomas has entered his car in the Ostend, Belgium, races held during August. It is here that the French, German, Italian and English stock touring cars gather for speed contests every year, and the Thomas "Flyer" has a splendid chance to win every legitimate stock touring car event in its class, which will do much to in-



GUS BUSE, OF BUFFALO, IN A PACKARD
Perfect score in Glidden Tour

the city the use of the machines one day every year. Thus visitors to the Eastern metropolis are shown about the city. What New York can do surely Peoria will equal."

When a public functionary is moved to tell a lie it is best to make it strong. We hope the Peoria automobilists swallowed the bait.

There was an amusing occurrence in Dublin recently in which the ordinary prejudice of rural mankind against the motor vehicle was responsible for decidedly ludicrous results. A woman living in the poor quarter of the town found her child nearly drowned in a tub of water just as an automobile was passing. She rushed out, intending to

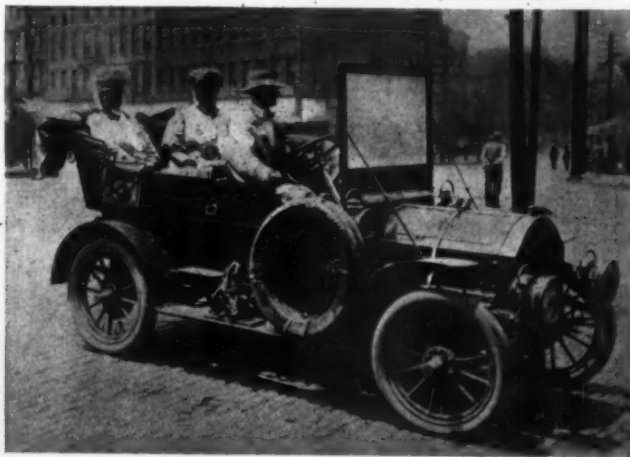
the hospital and the woman and child got out to be attended to, just as the constable in another car he had impressed into service dashed up and placed the motorist under arrest.

Thomas Car Touring Europe

Edwin L. Thomas has just left for Europe, where he will tour in various countries on the continent for three months, returning to the United States in time to witness the Vanderbilt elimination trial.

crease American prestige by leaps and bounds. Should any of these races be won, it will be the first conquest by an American car in a speed event on the continent.

We notice that Norfolk, Va., is agitating to have conventions of various associations meet there during the Jamestown Exhibition. As people attending conventions are always looking for amusement and as automobile riding has become a most popular pastime, we di-



P. S. FLINN IN A PIERCE CAR
Perfect score in Glidden Tour



WILLIAM E. WRIGHT AND PARTY IN THE 4-CYLINDER KNOX
Perfect score in Glidden Tour

rect the attention of all concerned to the fact that Norfolk county has adopted the State automobile law, which holds that speed not exceeding fifteen miles can be maintained, and under certain conditions this must be held within an eight mile an hour limit. Special care is demanded while machines are being driven past uneasy horses that show fright at the approach of the horseless carriages.

Whipping the Devil Round the Editorial Stump

We have had considerable experience with trade publications that were generally ready to say a good word in the reading columns about the goods of advertisers. Some of the advertisers were in the habit of acting as if the paper belonged to them, but the rule was that they were fairly modest in their requests for extra notice, and they generally refrained from reflecting on rival advertisers. A different spirit seems to

the place of cabs has resulted in greatly reducing the number of veterinary surgeons. The colleges where veterinary surgeons are trained complain that there is great difficulty in getting students. Four years ago there were over 6,000 veterinary surgeons in London, while now there are only 800. It is predicted that three years hence not more than 300 will be able to find employment.

Automobile Registration

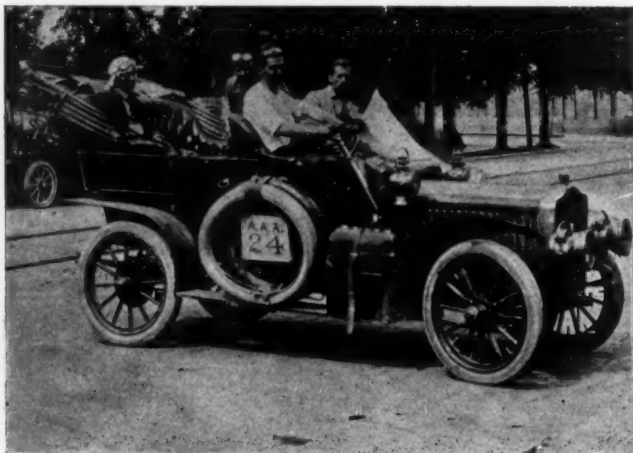
The registration figures in New York State for the first six months of 1906 to July 1 are interesting. These show that in that period 6,907 machines were entered at Albany, of a gross selling price of \$16,302,250. Of these, 6,386 were of American manufacture, of a gross selling price of \$12,772,000, and 521 were of European construction, of a gross selling price of \$3,530,250.

The largest individual registrant of automobiles at Albany is John Jacob

H. W. Lewis, all New Yorkers, who are summering at North Asbury Park; John Graham, of Jersey City, and William Buchanan, of Montclair; also North Asbury Park summer people. George Thompson, of Asbury Park, is another member.

Automobiling in the West Indies

Automobiling is growing slowly on the Island of Jamaica, but it is badly handicapped through a heavy import duty on gasoline. An automobile club, called the Jamaica Motor Union, has been formed, and the organization is working vigorously to have the duty on gasoline repealed or materially reduced. The automobilists of Jamaica are looking forward with much pleasure to the approaching visit of a group of American automobilists to the West Indian Islands. It is expected that this visit will greatly stimulate automobiling in these islands and that it may influence the



C. W. KELSEY IN A MAXWELL CAR
Winner of the Deming Trophy



PERCY P. PIERCE IN PIERCE CAR
Perfect Score in Glidden Tour

prevail among many automobile advertisers and their publicity representatives. We are constantly receiving puffs about articles coupled with reflections upon everything of the kind sold by rival makers. An advertiser has no right to request the publication of such items in the reading columns of any paper. If he wishes to belittle his rivals' goods, the place for doing so is in the advertising columns, when it will be distinctly understood from whom the attack emanates.

Automobiles Starving the Vets

The great multitude of horses required in the hauling of omnibuses and cabs in London gave employment to a great many veterinary surgeons, and they were noted for their skill in caring for the health of animals. Reports now show that the development of motor busses and of automobiles that take

Astor, with thirty-one cars, though four of these have been canceled, leaving a total of twenty-seven machines still registered in his name. More than half of these are of American manufacture, the total value being more than \$150,000.

Asbury Park Automobile Club

A number of automobilists, permanent residents of Asbury Park, N. J., and summer visitors, have formed the Asbury Park Automobile Club. A meeting of those interested was held last month and a temporary organization effected. No officers, except a secretary, Richard A. Martin, who is summering at 310 Eighth avenue, Asbury Park, have so far been elected, although the club is taking in new members and planning for an active summer.

Those most prominently identified with the club are: Mr. Martin, his brother, George Martin, Guy Bates and

powers that be to display more favorable consideration for automobilists and their interests.

Rochester Derby

The announcement has been made by Senator Morgan that he cannot manage the Asbury Park Automobile Carnival because he has engaged to manage the Automobile Labor Day Derby, at Rochester, N. Y. The latter is a 100 mile race, which is to be limited to touring cars. Between \$6,000 and \$7,000 will be expended in widening the road and preparing it for the race. Crude oil will be used in laying the dust. The full consent of the authorities has been obtained to close the road to traffic during the race. The race is limited to twenty-five contestants, with an entrance fee of \$300, and the trophy will be a cup valued at \$1,000. A limit of 60 H. P. is placed on the cars, which will be

required to carry both driver and mechanic. In addition to the big race there will be a one-mile straightaway race.

Efficient Carbureters

There are two essentials to an automobile that resemble the heart and lungs of an animal, they are an efficient carbureter and a proper working sparking device. Those who have experienced annoyance from defective carbureters should look into the Newcomb Floatless, recently placed on the market. The leading features are simplicity, economy and durability, and it is claimed that this carbureter will increase the power of the motor and never needs priming. A. Ward Chamberlain is sales manager of the company handling this carbureter.

Fines Converted by Graft

The Freylinghuysen Automobile Law of New Jersey was conceived in iniquity,

Motor Car Co., of Lansing, Mich., organized two years ago, with R. E. Olds as president and the largest stockholder, last month declared the second 10 per cent. dividend of this season, and also within the past few months has retired the entire issue of preferred stock of \$100,000.

A 10 per cent. dividend was declared at the end of the first season. As the stockholders have never paid but 50 per cent. of their stock subscription, the three dividends in the two years have amounted to 60 per cent. of their investment.

No Pleading of Baby Act by Shanley

A most extraordinary thing happened at Asbury Park, N. J., last month. William C. Shanley, of Newark, N. J., who is one of the trustees of the New Jersey Automobile and Motor Club, was arrested for exceeding the speed specified as legal by the Freylinghuysen law. The

real test about venturing on soft spots on the beach, but her sister was not so cautious. After finishing second in the women's race Miss Dorothea Potter ran along the beach until her car ran into a gully from which it could not be moved until a horse was called into action.

All of the races except the contest for women were run as time trials, the distance being one mile for each class. The women's race was a half-mile handicap, in which Mrs. Peter Smith, 12 H. P. Franklin, had the limit allowance of 20 seconds. Miss Dorothea Potter, 26-28 H. P. Oldsmobile, had 8 seconds handicap, and Miss Emily Potter, 30 H. P. Peerless, was on scratch. Miss Emily Potter won by about 20 yards in 52½ seconds, her sister being second. Stanley Mott, 8 H. P. Oldsmobile, was the only competitor in the single-cylinder event and his time for the mile was 2 minutes 40 seconds. E. A. Hudson, 26-28 H. P. Oldsmobile, had a walkover in the event for cars priced at under



CHAS. F. BARRETT OF HARTFORD, CONN., IN A COLUMBIA CAR
Perfect Score in Glidden Tour



ARCHIE HUGHES IN A PIERCE CAR
Perfect Score in Glidden Tour

and appearances indicate that the enforcement is breeding corruption, wickedness, and theft. Not a few of the legislators who supported the measure pretended that they did so in the interests of the good roads which were to be built from the fines levied upon reckless automobilists. The minions of the law have already inflicted fines sufficient to make their mark upon road making, but five weeks after the law went into force the fine collectors in Trenton, the seat of war and legislation, report that less than one hundred dollars has been received from the many fines inflicted all over the State.

Reo Motor Car Co. Prospering

Considerable complaint is current that the manufacture of automobiles is unprofitable, but we expect the profit or loss depends upon the way each individual concern is managed. The Reo

automobile club of which Mr. Shanley is a prominent member makes a specialty of defending members unfairly prosecuted by over zealous officials, who see violations that exist entirely in their imaginations. It would have been supposed that Mr. Shanley, with his influential backing, would have defied the minions of the law. Instead of doing that, he paid a fine of \$100 without protest.

Long Beach Races

Everything comes to those who wait, and the Long Beach Country Club evidently succeeded in making its peace with the weather man, for it managed to run its race meet one day last month after rain had caused two postponements. Miss Emily Potter, of Westchester, who drove one of the several cars that were stuck in the sand two weeks ago, was very careful during the

\$2,500, his time being 2 minutes 4 seconds. Ralph Monjini won the event for cars costing \$2,500 and over with a 40-45 H. P. Matheson in 1 minute 29 seconds. Jack Rutherford, 30 H. P. Peerless, was second in 1 minute 34½ seconds, and E. R. Strong, 40-45 H. P. Pierce, was third in 1 minute 49 seconds.

The Gum Country

There is an attraction on the Glidden Tour route which has probably been identified by none of the tourists, although it is well worthy of attention. In the northern part of Oxford County, Me., at the entrance of the Rangeley Lake region, is a prosperous little settlement known all over the State as Gum Corner.

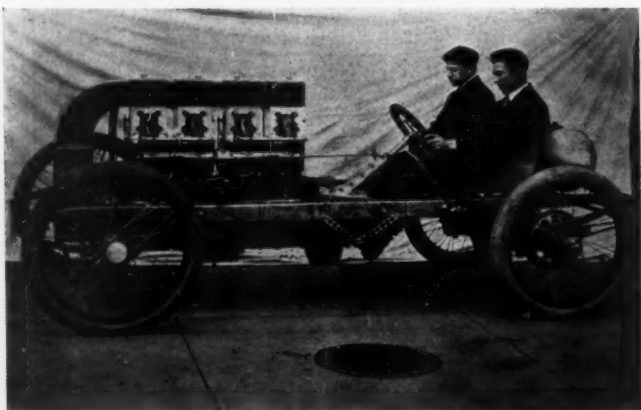
Byron is the township and the station, but from the time A. O. Reed made the little village synonymous

with spruce gum it became Gum Corner, says the Boston Globe, and the shrewd Yankee the gum king, and such they remain to-day.

Mr. Reed collected gum for twenty-five years.

For three or four years previously he dug the gum himself, bringing in from fifty to seventy-five pounds every good day. On rainy days he cleaned and marketed gum.

"After three years," said Mr. Reed, "I struck in on a larger scale and bought gum of other diggers as far north as the Magalloway region. They brought it along in four-horse loads. For twenty-five years I bought on an average of forty tons a year. The clear lumps I sold around the State for \$1 a pound; the rough gum I shipped to Elgin, Ill., where I received 50 cents a pound for it. Success? Well, it built the little house you see under the elms here, and I look pretty healthy myself."



PRAYER-MILLER RACING CAR, BUILT FOR VANDERBILT RACE
Wheel base 94 inches. Cylinder $7\frac{1}{4} \times 6$ inches. Rear axles Belden type, two forward speeds and reverse. Weight 1,850 pounds. Cylinders air cooled. One of the most powerful cars ever built

Rash Youth

Mr. G. J. Grammer, vice-president of the New York Central Railroad, with headquarters in Chicago, appeared in the Sheffield Avenue Police Court, Chicago, to defend his son, Mr. W. B. Grammer, who was arrested for violating the automobiling speed ordinance. Mr. Grammer and his wife were in the machine at the time.

Justice Mahoney imposed a fine of \$10 and costs.

"Hully gee!" exclaimed the young man, who is 19 years old.

"I fine you \$25 and costs," exclaimed Justice Mahoney, "for lack of respect for the court."

The elder Mr. Grammer humbly apologizing for his son's words, obtained the consent of the court to have the original fine of \$10 imposed.

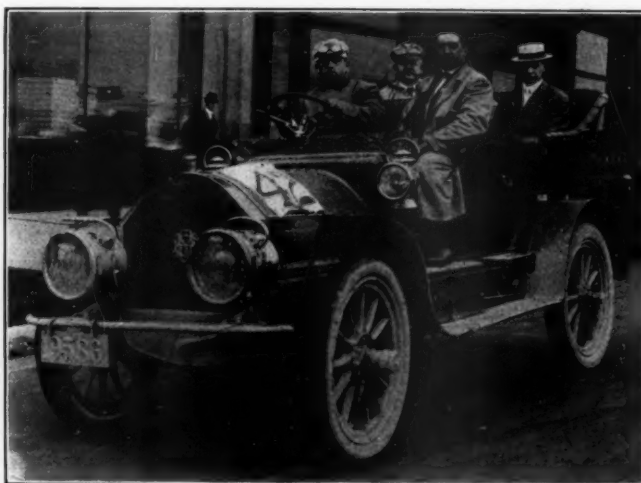
A. C. A. Annual Automobile Show

Early in the month an arrangement was made by which the seventh annual automobile show, conducted by the automobile Club of America, will be held in the Grand Central Palace, Lexington avenue, Forty-third and Forty-fourth streets, New York city, December 1 to 8, 1906, where more space can be obtained than is available in Madison Square Garden or the Sixty-ninth Regiment armory. This move is made necessary by the requirements of sixty or more manufacturers who have demanded more space for their increasing number of models and who have long been desirous of having an earlier show than the January exhibition of past years. The show will be open to all, as usual.

When this information was made public it excited very much interest in automobile circles, mostly of a satisfactory character. The decision to hold the show so much earlier than usual received general approval. The space

The Show Committee of the Automobile Club of America consists of Gen. George Moore Smith, chairman; Alan R. Hawley, George P. Butler and S. M. Butler, secretary. This committee will manage the show in connection with Alfred Reeves, manager of the American Association. Among those at yesterday's meeting of the manufacturers were Benjamin Briscoe, William Mitchell Lewis, H. H. Rice, Charles Lewis and Chas. E. Duryea.

In the new building, the club will be much better off than it has been in previous shows, for there will be no additional expense for the construction work like that required in the armory last winter in making the unfinished building ready for the show, which materially cut down the profits. Of the show in December, one-half the profits will go to the Automobile Club's exhibition fund and one-half will be rebated to the exhibitors. The radical change of date



MARTIN BECK IN PIERCE GREAT ARROW
In Chicago-Aurora-Elgin Reliability Race

available will be about 60,000 square feet, and all concerned in its management are confident that the whole of the space will be engaged long before the show opens. The manufacturers of automobiles realize that the early date of this event will benefit the trade, for it will have the effect of accelerating the purchase of automobiles for the coming season.

In line with the club's policy to promote a show for the general good of the industry, the exhibition in December at the Grand Central Palace will be thrown open to the world. Associated with the club in the affair, which is expected to be the largest automobile show ever given in New York, will be the members of the American Motor Car Manufacturers' Association, who have underwritten a large portion of the 60,000 square feet of space offered in the palace.

and location is certain to cause a sensation in automobile circles.

The average newspaper reader pays too little attention to the advertisements. We advise the readers of the AUTOMOBILE MAGAZINE to read over the advertisements carefully every month, and we assure them from long experience that they will enjoy the reading. When a notice is seen of something you want order it at once and do not forget to tell that you saw it among our artistic and attractive advertisements.

"If I catch your dog eating any of my chickens I'll shoot him," said the old gentleman who keeps a henhouse, angrily, to his neighbor. "I don't care," said the neighbor. "If he eats one of your chickens it won't be necessary for you to shoot him."

Events of the Month

Chicago-Elgin-Aurora-Reliability Test

The Chicago automobilists who could not spare the time to take part in the Glidden tour, resolved to have a reliability test of their own. The affair was managed by the Automobile Trade Association and the Chicago Automobile Club. It was run on July 26 over the Chicago-Elgin-Aurora century course. A chain of automobiles nearly twenty-five miles in length stretched out over the Chicago-Elgin-Aurora triangular course. Eighty-eight qualified entrants and a baggage truck left Michigan avenue and Hubbard court at one-minute intervals, beginning at 9 o'clock. By the time that No. 88 had been entered upon the grind No. 1 was expected to have completed almost one-fourth of the course.

Seven hours and thirty minutes were allotted for the run, and the winning car

Three ladies entered as drivers of cars and two of them, Miss K. D. Swits and Mrs. B. F. Draper, went through with perfect scores.

The police along the route acted as meanly as they could in trying to catch drivers exceeding the legal speed, but they succeeded in holding only two men and emphatic protests were made by spectators that the legal speed was not exceeded.

Wonderful Run of 4-Cylinder Ford Runabout

When Henry Ford announced his four-cylinder runabout, having nearly eighteen horse power and weighing only about 800 pounds, many wise ones

sure the oil was feeding right. As the oiler had not been adjusted, owing to our impatience to get away, we made sure by putting in a little oil every twenty-five or thirty miles. We had nothing but loose sand roads all the way to Toledo, where we arrived about 6 P. M., and spent the night, and so far had done nothing to the car. Left Toledo at 6 A. M., Friday morning, ran through to Bellefontaine, arriving there at 2 P. M. Were laid up here by a rain, spent the night and had an early start Saturday morning and had nothing but mud and water from this point to Cincinnati. Passed through Springfield, Dayton, Middletown and Hamilton. We did absolutely no repair work



LINED UP AT THE START
Chicago-Aurora-Elgin Reliability Run



FRED L. GOOD AND RICHARD BACON
Pilot Car on Chicago-Aurora-Elgin Reliability Run

in each of the four classes entered had to complete the route in exactly that time. Reliability and not speed was the aim of the tour.

Fifteen miles an hour was the average running time prescribed, divided into three sections, as follows: Chicago to Elgin, 39 miles, 2 hours 30 minutes; Elgin to Aurora, 23 miles, 1 hour 30 minutes; Aurora to Chicago, 42 miles, 3 hours. Fifteen-minute stops were made at the controls at Elgin and Aurora.

Thirty-two of the cars made the run with a perfect score. Among these were two Maxwells, Holsman, Speedster, Jackson, Buick, Reo, Northern, Pope-Hartford, Premier, Stevens-Duryea, Elmore, Queen, Mitchell, Haliday, Stoddard Dayton, Knox, two Autocars, White, three Thomas's, Ranier, Dobson, two Columbias, Cleveland, Pope-Toledo, National, Locomobile and Stearns.

thought the car would be too frail for heavy work on bad country roads. Ford's competitors naturally promoted this idea with the result that many persons have been curious to see just what the sensational runabout would do. Ford agents have received the brunt of these criticisms, based on a mere guess, and they are now anxious to demonstrate the actual qualities of the car. Nine out of every ten of them insist on driving their demonstrating car from the factory to their home town. Among those who have made the longest trips is E. C. Shumard, of the Special Motor Vehicle Company, Cincinnati, Ohio, Ford agents at that place. The following transcript of Shumard's letter to Mr. Henry Ford, under date of July 23, speaks for itself:

"We left Detroit at noon and made our first stop about ten miles out to make

on the car nor adjusting from the time we left your factory until our arrival at our store. We found no mud, sand or hills that we did not take on the direct drive and for mile after mile we drove through water that splashed clear over our heads.

"We have looked the car over carefully since our arrival and find absolutely nothing to do except get the mud out of it, and I wish to say that in my opinion there is not a car built in America of any price or size that could make this trip in the kind of weather that we made it, in the same length of time, and get through with this kind of a record. It does not seem possible that we could take a new car and drive it three hundred miles without even cleaning a spark plug or tightening a nut. The car rides very easily and we could have driven another hundred or two miles

without fatigue. We were, of course, very careful the first hundred miles or so and gave the engine plenty of oil. We did not put any water in until we arrived at Findlay.

"We believe we have the cleanest record of any car that ever crossed the State of Ohio and part of Michigan, and I wish to congratulate you on turning out such a wonderful car for the money."

Touring in Spain

Walter Hale, of New York, recently toured through Spain. Telling about the trip, Mr. Hale said: "We landed in Gibraltar and, because of military regulations of bridges, gasoline, etc., it was a week before we got away, and then I put my car on a boat and went to Malaga. Mine was the second automobile ever seen in Gibraltar, and the other belonged to Lord Charles Beresford. I suppose he had an easier time of it, but it takes influence about as great as his to get an automobile away from the 'Rock.' When at last we got to Malaga I hoped for better things, but sometimes I wished we were back at Gibraltar. The country to Grenada over the Sierra de Alhama and further on reminds me of the deserts of Arizona and New Mexico. We forded fifteen rivers in one day—that's a sample—not just crossed them, but forded them all. The roads are rough and rocky and the hotels along the way are bad.

* * * * *

"I have been through Mexico and I was in Venezuela during the blockade, but I have never known a wilder country or one where civilization seems so far away. English is not spoken anywhere except at Grenada, and they are as ignorant of French. Garages are few and far between and often gasoline is procured only with great difficulty."

Charles F. Barrett, a Glidden tourist, who was one of the thirteen to finish the event with a perfect score, in a Columbia 24-28 H. P. car, voiced the opinion of a majority of motorists tourists when he said that the test had shown up in a remarkable way, the absolute necessity of a good efficient spring equipment. The roads from Saratoga to Montreal had been almost impassable in places, cut up by ruts, ridges, and innumerable water bars, hard, not only on tires, but on springs as well. Barrett's springs stood the ordeal perfectly, and to this fact he attributed a good deal of his success.

Bay State A. A. Annual Tour

The second annual tour of the Bay State Automobile Association of Boston was made from Boston to Bretton Woods, July 27. Several members of the New York Motor Club took part in the trip. Fourteen cars started from

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Boston and were augmented at several places until there were twenty-six that arrived at Bretton Woods. Among those who took part in the outing were: A. L. Kull, of New York, and party, in a Wayne; Dr. H. B. Metcalf, Buffum; W. R. Noone, Thomas; G. C. Squire, Premier; Mme. Ella Des Rochers, Franklin; W. H. Sullivan, Welch; C. H. Morey, White; H. D. Church, Peerless; L. R. Speare, Winton; Morgan Kent, White; H. E. Rogers, Stanley; Albert Davis, White; R. C. Stevenson, Locomobile; Wm. Gray, Locomobile; Robert Damon, Pope-Toledo; J. C. Prouty, W. E. Myrick, J. S. Hathaway and B. A. Price, in White cars.

The Matchless Maxwell

Among the shining achievements of the Glidden tour, the work of the Maxwell-Speedster, entered as a confetti car by the Maxwell-Briscoe Motor Co., deserves special mention. This car, the smallest in size and horse power participating in the tour, made the entire journey with practically no trouble, being detained on the last day by the dropping out of a pin from the universal coupling. Running on its own schedule, the car was permitted to develop great speed, and on seven of the twelve running days is made the fastest running time between starting town and night stop. The dependability and toughness of the big little motor car caused no end of comment along the line. It came to be expected at each night stop as confidently as if it had been shipped by railroad.

R. A. Grant, who drove the car, is an engineer of great ability, and his skill and judgment are responsible in a high degree, for the magnificent record made. On July 16, on the way to Elizabethtown, it was Grant who discovered that the provender wagons of the soldiery had destroyed the bridges, and his prompt action in securing another road, arranging for the carriage of the confetti and in driving back over atrocious roads for twenty miles to warn the checkers, saved the tourists from an embarrassing predicament. At the conclusion of the tour, the car was driven to the Tarrytown factory, thereby demonstrating its strength and durability after the taxing test it had been put through.

Davenport in Hill Climb

An auto hill climbing contest was held on July 30 under the auspices of the Davenport Automobile Club, at Davenport, Ia. Below we give the cars entered with leading particulars:

"White Steamer," entered by Oscar Schmidt, driven by Emil Buck; 32 seconds.

"Pope-Hartford," entered by Theo. Oelkers, driven by Peter Petersen; 32½ seconds.

IF you want absolute immunity from
**PUNCTURES
BLOW-OUTS
RIM-CUTTING
SKIDDING**

and release from tire anxiety of every kind

Use

Healy Leather Tires

The construction of these tires is an evolution—the *survival of the fittest*. No tire has ever been produced that contains the peculiar virtues of a Healy Leather Tire.

Profiting by the failures and successes of our competitors, we have made the Healy Leather Tire unequalled, and have produced a tire of which it can positively be said that it is made with "The Best of Everything in the Best Place"

HEALY LEATHER TIRE CO., Healy Building, 88-90 Gold St., New York City

We have much to tell you—let us say it



Model C, \$75.00. Season, Trip, Speed

SPEEDOMETERS ODOMETERS

HOW FAST AND HOW FAR

All human ingenuity can devise has been attained in these instruments—absolutely correct. Easy to attach or adjust. Specify name, model and year of your car and diameter of forward wheel when ordering by mail to insure immediate delivery. Jobbers' and Dealers' trade solicited.

Send for Catalogue D

McGIEHAN MANUFACTURING CO.,

Telephone, 4348 Bryant.

1557 BROADWAY, N. Y.



Model A, \$30.00
Trip and Season

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"Locomobile," owned and driven by E. S. Johnson; 35 seconds.

"Pope-Hartford," entered by F. Dow, driven by Orey Jansen; 35½ seconds.

"Pope-Toledo," entered and driven by Ned Crossett; 40¼ seconds.

"Moline," entered and driven by James Barclay; 43 seconds.

"Franklin," entered by Mason's Carriage Works, driven by Chas. Hathorn; 43½ seconds.

"Winton," entered by Mason's Carriage Works, driven by Chas. Mason; 58 seconds.

One Cylinder Class

"Oldsmobile," entered by Mason's Carriage Works, driven by Bert Brown; 59 seconds.

"Oldsmobile," entered and driven by A. H. Ruebsam, 62½ seconds.

they need to be exonerated from prosecution for murder or dangerous assault that may result from their hatred of people running horseless carriages.

State Road Commissioner Hutchinson, of New Jersey, has given his approval to the project of macadamizing the six and a half miles of road between Hammonton and Atsion. When this has been done there will be improved highways from Trenton to Atlantic City, with the exception of a stretch of a little over three miles between Atsion and Indian Mills, where the roads are in rather poor condition.

Quick Run Across the Continent

Probably the most extraordinary automobile event of the month was the automobile event of the month was the successful transcontinental run made

ard, his time being sixty-one days. Then Whitman made the trip in an Oldsmobile runabout, which took seventy-two days. It was in 1904 that Whitman made the existing record of a few hours less than thirty-three days, traveling in a 10 horse-power Franklin. The party lost one day by running off the road near Coneaut, O., and damaging the car so seriously that under less vigorous hands the trip would have been abandoned.

The Sorrows of the Rich

"Pity the sorrows of the rich" is the reversal of an old proverb which is receiving widespread discussion at present among the class of people who resent any interference with capital or with the entrenched position of accumulated wealth. In this connection, a writer in the North American Review, whose subject is "An Appeal to Our Millionaires," makes the assertion that automobiles are responsible for much of the prevailing sentiment against rich people, and the deliberate lie is told that "Since New Year's Day these great cars kept for pleasure have killed more people on the public highways than were killed in the war with Spain." Sensational distortions of the truth like that injure the case the writer was trying to support by special pleading.

We do not believe that there is any farspread hatred of wealth or of the manifestations of riches, except where it is used for the oppression of the people. Many rich men and wealthy corporations exact all the rights and privileges they can take possession of under the law, and display complete insensibility to the principle that capital has duties as well as rights. It is that one-sided condition of affairs that excites dislike to rich people, not the fact that they live in luxurious palaces and that their sons chase through the country in handsome automobiles. We cordially agree with Judge Gaynor that the public does not hate wealth, but only the robber wealth that plunders it.

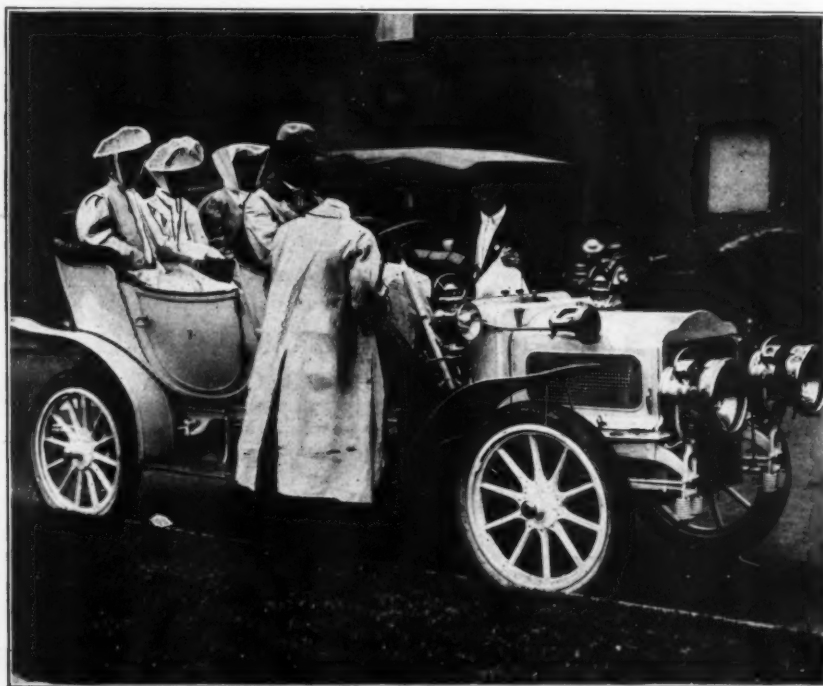
Did His Best

Village Constable (to villager who has been knocked down by passing motor cyclist)—You didn't see the number, but could you swear to the man?

Villager—I did; but Hi don't think 'e 'eard me.—Punch.

Leipzig will before long have the finest railway station in the world. It will cost more than 130,000,000 marks, and will have no fewer than thirty-two tracks.

London Punch defines a bore to be a man who persists in talking about his automobile when you want to do the same thing.



A WHITE CAR IN THE CHICAGO-AURORA-ELGIN RELIABILITY RUN

Two Cylinder Class

"Buick," entered by Dr. C. E. Glynn, driven by Frank Jungjohann; 47¼ seconds.

"Lambert," entered by W. H. Seaman, Sr., driven by Harvey Seaman, Jr.; 73 seconds.

The emir of Afghanistan recently discovered that three of the muftis of his court had been grafting, and also had been guilty of oppressing the poor. He ordered them buried alive, and this was done without delay.

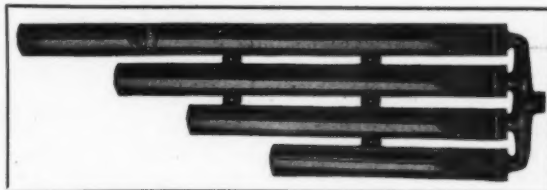
Seventy-five farmers of Indiana have petitioned for permission to carry fire-arms in order that they may be used on automobilists who violate the speed law. These rustics have not made their petition sufficiently comprehensive, for

by L. L. Whitman and C. S. Carrio with a six cylinder 30 H. P. Franklin.

The candidates for high laurels left San Francisco on August 2 and arrived in New York August 17, making the trip from Pacific to Atlantic in fifteen days and two hours—a most extraordinary performance. It is not, however, up to the possibilities, for the party was delayed by floods in various parts of the journey. With ideal conditions it might be possible to shorten the time by at least twenty-four hours.

This is the third transcontinental run made by Mr. Whitman. The first trip across the continent was made by Dr. Jackson of Vermont, who in 1903 made the trip with a Winton in sixty-four days. Tom Fetch made the journey a little later that year in a Pack-

GABRIEL HORN



Ride in an automobile with a driver who blows a discordant, shrieking bulb horn as a warning, then ride with one who uses a melodious **Gabriel Horn**, and note the difference in the results obtained.

Pedestrians heed the warning of the former, but its shriek annoys, and angers them. A **Gabriel** warning is just as effective, but its pleasant, agreeable notes add a sort of "if you please" effect to its demand for room that makes it a request.

Bear in mind that **Gabriel Horns** are always ready for use—nothing to break or get out of order. Ask for Booklet.

GABRIEL HORN MFG. CO. 980 HAMILTON STREET
CLEVELAND, OHIO

CONTINENTAL

TIRES are not "best" because they are imported, but they are imported because they are best.

Even the motorist who has never had the supreme satisfaction of using "CONTINENTAL" Tires must realize this. The enormous and steadily increasing American demand for Imported Continentals in the face of all the American and Foreign competition is remarkable.

It is the unmatched material and patient building up of Continental Tires that insures them this supremacy. Continental Tires hold the world's endurance record. You should insist that they be on your car.



THE CONTINENTAL CAOUTCHOUC CO.

W. TISCHBEIN, President

EMIL GROSSMAN, General Manager

43 WARREN STREET, NEW YORK

FACTORY, HANOVER, GERMANY

TOO GOOD TO LOSE FOR TWO

ON receipt of two dollars we will send The AUTOMOBILE MAGAZINE for one year; also a copy of "HOMAN'S AUTOMOBILE EDUCATOR," price of which is \$2.00. Both are recognized authorities on automobiling.

AUTOMOBILE PRESS, 136 Liberty Street, NEW YORK

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

Among Garages

Albany Garage

One of the most complete and up-to-date garages in the country is that which is owned by the Albany Garage Company, 28 and 30 Howard street. It is a fireproof structure, four stories and basement, built of granite, brick, concrete and steel, with cement floors. The few partitions used are also of fireproof material. It has a frontage of 69 feet and a depth of over 90 feet. The top floor of the building is fitted up as a complete workshop, filled with all the tools and appliances required to repair and construct motor cars, and has a

of the gasoline which they say emanates from the garage to the extent of flavoring all their food and drink, highballs even failing to escape the infection. The only way to settle the dispute equitably, in our opinion, is to convert the high-toned apartment house into a garage annex.

Where Chauffeurs Are Scarce

If you own an automobile you are privileged to call your man a chauffeur. If you rent, occasionally, you should refer to him as a driver. But whatever they're called they're very scarce in Kansas City just now. Chauffeurs are paid \$60 and board and room, or \$125 and "find themselves." The outlook now is that \$75 and found is to be the standard wages this summer.

The above item was cut from the Mo. Star of Kansas City. We commend it to the attention of the numerous chauffeurs who apply to the Publicity Department of THE AUTOMOBILE MAGAZINE for information as to where

known machinist, will have general charge of the business, buying, selling and repairing automobiles. The following have been elected directors: A. G. Lewis, Charles S. Burrall, J. W. Mellen, T. H. Truslow and Walter A. Clark.

The formal opening of the Pond auto station last month was in the nature of a treat to the people of Worcester who are interested in automobiles. The garage is well appointed, with every facility for the business carried on. One of the features that will appeal strongly to owners is the vulcanizing plant, one of the most complete in New England. Another is the electric charging plant, the power of which is made from the station's own apparatus.

The garage is thoroughly modern and fireproof throughout, a fact attested by the lowest rate of insurance on any garage in the State.

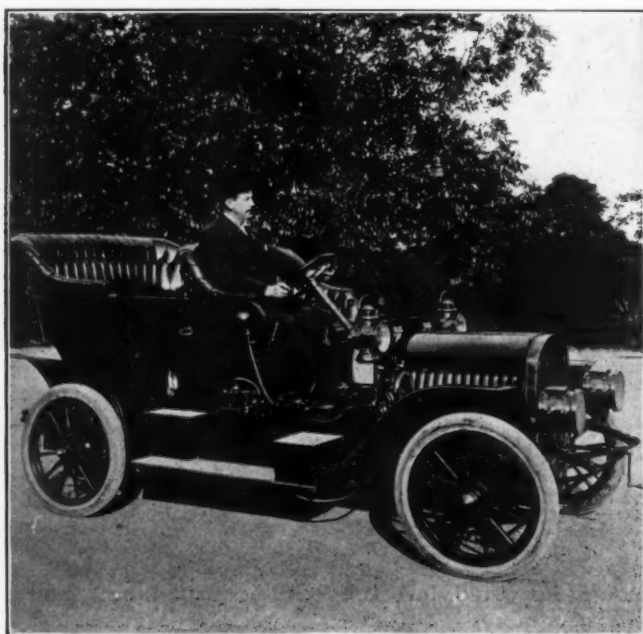
The exhibition of cars is a novelty in its way. Visitors are given a practical demonstration under the charge of skilled chauffeurs.

A municipal explosives commission has been appointed to frame rules in regard to garages where gasoline is kept and stored. Among the chief features of the proposed amendments are the requirement of a pump house of no greater capacity than is necessary for the handling of the inflammable liquid and storing the safety cans; that a cement floor shall be provided; that there shall be heavy galvanized iron drip pans, and an improved ventilating pipe. The Acting Mayor will approve the amendments.

A certificate of incorporation of the Connecticut Automobile Company of New Haven, has been filed with the Secretary of State. The company is organized with an authorized capital stock of \$10,000 to engage in the manufacture, sale, repair and storage of automobiles, wagons and carriages, and also to do a general hardware business.

Jeremiah C. Smith, Thomas H. Whitfield and David E. Fitzgerald are the incorporators.

W. S. Daniels, who for a number of years has conducted the Michigan Automobile Company, of Grand Rapids, Mich., has sold the enterprise to the Buick-Johnson Company. This enterprise has taken possession of the establishment at Ottawa and Louis streets. Those interested in the company are: C. R. Johnson, president and general manager; A. H. Goss, vice-president; C. Roy Clough, secretary.



MR. WINTHROP E. SCARRITT IN HIS NEW PRAYER-MILLER CAR

force of experienced mechanics always on hand. The doors of the garage are never closed. The four floors are given up to the storage of cars, and over 175 of them can find cover within these walls. Compressed air is used to hoist the cars to the upper floors.

Smith & Mabley have in New York city one of the largest and best equipped garages in the world at the corner of Broadway and Fifty-seventh street. The garage has a floor area of about 65,000 square feet or over 13 acres. About 200 men are employed in the place. Such an establishment ought to be the pride of the neighborhood, but it is impossible to satisfy some people. In fact, Alexander Smith Cochran is seeking in the courts an injunction to close up this pride-exciting garage.

Mr. Cochran is owner of the Rutland, an aristocratic apartment house close to the Smith & Mabley garage, and he asserts that his tenants object to the smell

they are likely to find lucrative employment.

The Empire Garage Company, doing business at No. 97 North street, Middletown, N. Y., was incorporated last month at Trenton, N. J., with a capital stock of \$20,000, which is divided into 200 shares of par value of \$10 each. Objects are to sell, hire, repair and manufacture automobiles and motor vehicles of all kinds and generally do all business connected therewith. Messrs. Fairchild and Bretthauer recently purchased the North street garage of P. C. Rutan.

A new corporation to be known as the Geneva Automobile Company has been formed at Geneva, N. Y., with a capital of \$15,000. The company has bought the J. A. Place garage on Caster street and took possession to-day. The company will carry a full line of automobile supplies. D. M. Dorman, a well-

PITTSFIELD

SPARK

COIL Co.

MANUFACTURERS OF



**Coils, Timing
Devices
Switches**

**Jewell Mica
Plugs
Terminals, etc.**



Our Coil is the most rapid, economical in battery consumption, most durable and reliable made in the world. Used exclusively by several of the largest and best automobile manufacturers in the country.

The Franklin Car, which recently won the Economy Test, was equipped with our entire Ignition Outfit—Coils, Timing Devices, Switches and Plugs

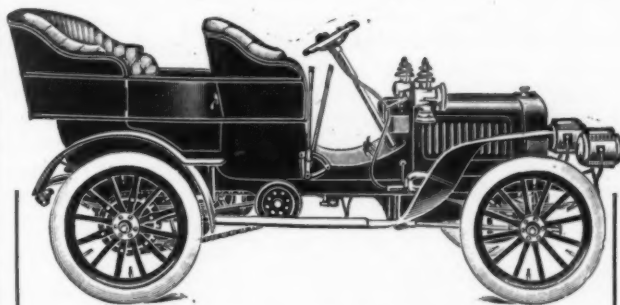
All we ask is an unprejudiced test to prove to you that our goods are what we claim.

Automobile owners who have ignition troubles would do well to test this Coil

Write for prices and description
of our 1907 Ignition Products

Pittsfield Spark Coil Co.

PITTSFIELD, MASS.



POPE-TOLEDO

Type X, 20-24 H. P.

Price 2,500

THE seemingly complicated mechanical proposition afforded in the study of the modern motor car presents to many prospective purchasers who are not of a mechanical turn of mind, an exceedingly puzzling problem, and oftentimes the more one's friends are appealed to, the more hopeless seems the possibility of ever arriving at a satisfactory choice, and yet, after all, the solution is not as difficult as it seems.

A careful study of **Pope-Toledo** construction, design, etc., will at once convince the purchaser that it is by all odds the best car on the market for the price.

The **Type X** is designed to meet the requirements of those who enjoy the daily use of a dependable and wieldy model. "It runs itself."

ENGINE: Four cylinder, of the four-cycle type, developing 24 B. H. P. **IGNITION:** Jump spark. **CONTROL:** Graduated from eight miles per hour on the high gear to limit of speed, operation is by spark and throttle lever situated on steering wheel. **TRANSMISSION:** Sliding gear, three speeds forward and reverse; direct drive on high speed.

FRAME: Channel steel, of "Pope-Toledo" design; light, flexible and strong. **BRAKES:** Main brake on drive shaft; two powerful band brakes on rear wheel.

Write for Catalogue

POPE MOTOR CAR CO.

TOLEDO, OHIO

NEW YORK CITY: 1733 Broadway

BOSTON: 233 Columbus Avenue

WASHINGTON, D. C.: 819 14th St., N. W.

Members Association of Licensed Automobile Manufacturers.



The heated term nearly always brings some sort of compensation. Here is the cooling comfort given to New York users of garages: "In accordance with a resolution adopted by the New York Automobile Trade Association, and by reason of an increase of more than 50 per cent. in the wholesale price of gasoline, we desire to advise you that commencing August 10 the price of gasoline will be 25 cents per gallon."

Nathan B. Whitfield's automobile station on Broadway, New Haven, has been sold to a corporation of local people who will manage the garage in the future under the name of the Connecticut Automobile Company. The incorporators were Attorney David E. Fitzgerald, Jeremiah Smith and Thomas Whitfield. Mr. Whitfield, a brother of the former owner, will superintend the business.

Mr. Smith states that the company will also take the agency of several new cars now on the market.

Mr. H. O. Harrison has organized a company to handle automobiles to be known as the H. A. Harrison Company. They are located temporarily in quarters formerly occupied by the Peerless Company on South Main street. The Harrison company has made arrangement for the erection of a 4-story and basement building on Hill street for a permanent home. The building is to be completed by January 1, 1907.

A new corporation, to be known as the Geneva Automobile Company, has been formed in Geneva, N. Y., with a capital of \$15,000. The company has bought the J. A. Place garage, on Castle street, and will do a general business in automobile supplies, buying, selling and repairing. A. G. Lewis, C. S. Burrall, J. W. Mellen, T. H. Truslow and W. G. Clark are the directors.

The H. W. Johns-Manville Co., New York, direct attention to the merits of their asbestos fire felt for covering hot surfaces. The best non-conductor of heat we know of is hair felt, but that cannot be used on very hot surfaces. The asbestos fire felt will stand almost any heat, and it is almost as good a non-conductor as hair felt.

A new arrival in automobile row is the Mitchell Motor Company of New York, which has recently moved into the building at the corner of Broadway and Fifty-eighth street. This company was organized to take over the business of the Mitchell Commercial Vehicle Company and is now handling the entire line of Mitchell cars, both pleasure and commercial vehicles.

The splendid new building of the Binghamton Motor Car Company, back of the Republican building, on State street, Binghamton, N. Y., is now completed and open for inspection. The new garage is 80x100 feet and was built with a view of making as complete and modern a structure for the purpose for which intended as could possibly be erected.

The Pennsylvania Auto-Motor Company has been formed for the purpose of building a new type of automobile. Phineas Prouty, A. E. Kennedy, C. J. McIlvaine and two other Philadelphia gentlemen compose the company. They are arranging to build a factory at Bryn Mawr.

The Funke Lamps

On the rough roads so common everywhere an automobile goes, it is hard avoiding jolts and uncomfortable jars in



A. H. FUNKE.

daylight. How much worse the discomforts are in the dark depends on the lamps carried. With first-class lamps such as the Autolyte the darkness is dissipated so that motoring is about as safe as in daylight. The Autolyte lamps are built of heavy material, all hinges and catches being made of castings, and not made of pressed-up thin stock. They are also furnished with imported green condensing lens, and at the price offered are certainly a bargain. They are made by A. H. Funke, 83 Chambers street, New York city.

Mr. A. F. Camacho, formerly manager of the American Automobile Storage Co., of New York, and more recently in charge of the Gaither-Owen Carbureter Co., has become connected with the National Sales Corporation, of New York. Mr. Camacho will assume the position as assistant manager, and

with his understanding of the mechanical features of the automobile, he will look after the technical details in connection with the National Sales Corporation's business.

The Gaither-Owen carbureter will be sold through the National Sales Corporation hereafter, and Mr. Camacho will devote his special attention to that appliance.

The Winton Company is to erect a new garage in London, England. Secretary George H. Brown recently returned from a trip abroad. He secured property for the new building in the West end of London. The Winton Company has outgrown its present location on Holbron Viaduct.

Garage owners in New York city are likely to be put to considerable inconvenience through a new rule of the street cleaning department which makes automobiles left on the street unguarded liable to seizure. Since the order went into force many machines have been taken to the encumbrance yards.

John J. O'Brien, a saloon keeper of 4183 Halstead street, Chicago, proposes establishing an automobile garage as an annex of his throat irrigating establishment. The rendezvous of automobiles is to be supplied with every convenience for accommodating motor cars and for sending the owners away happy.

Joseph Dryer, No. 328 West Twenty-fifth street; Daniel S. Dryer, No. 143 West Twenty-ninth street; Leon Dryer, No. 228 West Twentieth street, all of New York, have organized the Jackson Auto Renting Co. for the purpose of manufacturing motors, machines, engines, etc.

F. P. Freeman is about to erect an automobile garage at Irving street and Elizabeth avenue. It will be of patent made stone and will be two stories high. It will have a frontage on Irving street of forty feet and will extend back along Elizabeth avenue sixty feet.

The Ancient Mule

I.

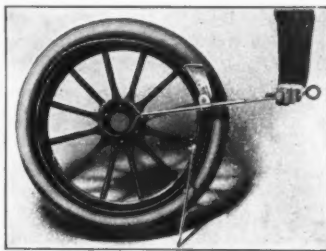
De ol' fiel' mule so stubbo'n
He put me out er breath,
I wisht I had a fence rail—
I'd whale him mos' ter death!

II.

I says: "You got ter plow dis fiel';"
He looks dis way en dat;
He backs his yers—he li' his heel—
Den, brudder, whar I at?

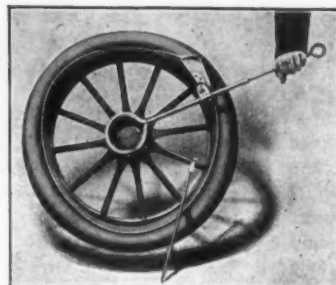
—Atlanta Constitution.

THE NEW "MINUTE" TIRE ADJUSTER FOR CLINCHER TIRES



Taking Off Tire with the "Minute"

This Adjuster is true to its name. It will actually take off or put on the **heaviest clincher tire** in **one minute** without injury to the shoe or inner tube. Running without friction on a set of rollers not visible in cuts, it may be **easily** operated by a **woman or child**. A trial will convince you. We will gladly send it on approval to responsible people. Patent applied for. Write for descriptive matter and prices.



Putting On Tire with the "Minute"

LONG & MANN CO. 520 Central Bldg.
Rochester, N. Y.

THE MASTER STROKE of the

New 50 Horse-power Thomas Flyer

was to wrest supremacy from the finest Foreign Product made. The beginning of the end of German, French and Italian prestige in this country is at hand. American constructive ability in the automobile world has been triumphantly vindicated by the Thomas, which represents America against the world.

The Thomas excels point for point—every foremost feature of foreign cars has been improved upon. There is not a straight line in the Thomas. It is all graceful flowing curves. Can you say after seeing all the other models under the most favorable circumstances that it is not the most beautiful car in the world?

The Graceful Body Construction of THOMAS FLYER



The 50 H. P. Thomas Flyer

is a patented dust proof body.

It is impossible to be comfortable or happy in a touring car when surrounded by a whirling cloud of dust. The Thomas dustless body, which has been greatly improved this year, absolutely eliminates this unpleasantness. Dust suction is entirely done away with. The dust does not rise until it is fifty feet behind the car. As we have said before there is not a straight line in the design of the Thomas body. It is graceful curves. The corners are beautifully rounded; the rear seat is widened and doors are wider, and two removable revolving seats have been added so that five or seven people may be comfortably seated all facing forward. All aluminum dash with mahogany lockers conform to the curves of the hood.

The car you buy should have the exclusive features of the Thomas, then you will appreciate the meaning of comfort and happiness.

The Thomas embodies all the elements of enormous strength which have hitherto been the prerogative of the best cars made abroad. Unlike them, however, this strength is not outwardly expressed in coarse and clumsy lines and crude looking workmanship.

The New 50 Horsepower Thomas Flyer Has

Four separate motors—mechanically operated valves, opposite sides. Three metallic disc clutch—a perfect clutch, that positively will not shatter in starting—never slips.

Four forward speeds and reverse. Gears changed between high and low speeds without passing through intermediate gears. Improved automatic carburetor; six miles or sixty miles on high gear. Back stop safety device; chain pull between bearings; anti-stripping gear device; single vibrating coil, and other paramount mechanical advantages, which are set forth in our 1906 catalogue.

Send for it.

THE E. R. THOMAS MOTOR COMPANY

NIAGARA STREET,

BUFFALO, N. Y.

Members Association Licensed Automobile Manufacturers

Indicated time 10:34 o'clock.



THE BULLARD SPEED-RECORDER

When the Driver and the Officer meet, and one has a Bullard and the other a stop-watch, there will be no dispute.

See those dots showing the beginning of a run at the rate of fifteen miles per hour.

The stop-watch is the only recognized instrument for recording race-track speed. The Bullard is the only reliable instrument operated in the same manner, making a permanent record on a card from any movement of the car to two miles per minute.

If within the limit the driver cheerfully compares his record-card with the stop-watch, and needs no other witness. If otherwise he must pay the penalty.

We do not present a tag with the Bullard to assure the officer that the driver knows his speed. The card talks. Send for booklet.

J. H. BULLARD & SON, SPRINGFIELD, MASS.

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

Automobile Touring

By Robert Bruce

(Continued from page 174)

Equipment

The car already in satisfactory everyday service is ready for any ordinary tour after a careful inspection, especially of the motive parts and tires. It is well not only to do this personally, but also to have a competent chauffeur or repairer do it, as a double safeguard. Opinions differ as to what should be included in the tool chest, many tourists being content to start out with what is provided for them when the machine is purchased. After nine weeks on the roads of the Eastern and Middle States, going over the various routes to and from the St. Louis Exposition for the A. A. A. gathering of 1904, the "Pathfinders," Megargel and Harrison, wrote clearly to the point as follows:

Keep an auxiliary gasoline tank somewhere about your machine, containing at least two gallons of gasoline.

Strap your springs down until they only have about three or four inches' play, and remember it is the jumping of the body that breaks the springs and not the going down.

Look well to your tires, and pull out all tacks, nails and other things that have stuck in the outer shoes at every stopping place.

Keep oil in your lamps and plenty of carbide on hand at all times, for you never know how soon you will have to use them.

Watch your oilers as a cat watches a mouse, for the oil you purchase along the road varies and necessitates careful watching and adjustment.

Carry an extra chain; also some extra links and blocks.

Have your tool-box equipment complete.

Keep your tonneau door shut and locked at all times.

Carry 100 feet of rope and two good single blocks.

Carry chain or rope to be wound around your tires on slippery roads.

When inquiring the road to a town, ask an automobilist, a bicyclist or a liveryman—not a farmer or hotel keeper.

Beware of speed ordinances in country towns and the ever-watchful constable who gets a fee for every arrest.

Do not give up if you strike mud, no matter how deep. It is the courage and persistency of the tourist that takes a machine through and not the rated horse power and cost of the car.

Good lamps are essential, for a tourist never can tell how late he will be obliged to run. Do not put all of your faith in gas lamps, good as they are today. At least two of the lamps should be oil, and a movable searchlight should be affixed to the dash; such a light will enable you to read signs and to locate horses many feet ahead. A tail lamp should also be carried, showing red behind to avoid the possibility of a collision from that direction. An extra tire should be carried, preferably inclosed in a tire case or wrapped securely in burlap or rope. This is im-

portant, for at every point the tire strikes an indentation will be worn, inasmuch that extra tires have had holes worn completely through them without ever having been attached to the rims.

An odometer, speedometer, gradometer, ammeter and hydrometer, all come in handy on a long tour, although none is positively necessary. The odometer tells your mileage, the speedometer signifies the number of miles per hour you are traveling; the gradometer shows the grades, the ammeter tests the batteries and is especially useful when purchasing new ones, while the hydrometer tells what grade of gasoline you are purchasing under the general supposition that it is "76."

Extra spark plugs, chains, brake leathers, and a complete set of tools, including an outfit for repairing your tires, with good, new rubber cement, are essential, while a good pair of waterproof hampers, an extra gasoline tank for cases of emergency, waterproof coats and possibly a storm apron for the occupants of the front seat to protect them from mud rather than from rain, are really needed on a tour.

The operator and each passenger need one suit of good warm clothing, at any season of the year, with woolen underclothing, and, of course, a top coat. The reserve suit, underclothing, toilet articles and miscellaneous belongings ought to go in one dress suit apiece, to be carried along in the vehicle or, in special cases, with a known itinerary, sent ahead by express. As a rule, however, it is better to limit one's baggage to that which can be carried along. Not only will this be ordinarily sufficient, but it will obviate the necessity of shipping and looking it up at the start and finish of the run. A raincoat and duster will both be carried as a matter of course, with an oilcloth cover for the vehicle optional, but worth while if it can be conveniently taken.

Protection

Leather is hot on a warm day, but dust will wipe off with a damp cloth, and mud will come off just as easily. Then when one is attired in leather he does not hesitate to jump out into the mud when his strength is needed to extract the machine from some mudhole, while were he dressed in other clothing he would think twice before landing in the mire. Trans-continental tourists usually wear leather caps, coats, knickerbockers, leggings and gauntlets. The latter are very useful, especially on a cold night, as the tops keep the cold air from blowing up the sleeves of the driver. Goggles are essential, but in purchasing use care in getting a pair that fit tightly enough to keep out the

bugs and small flies. A sunshade darkened on the inside and fitted to the goggles will prove especially beneficial on bright days.

If there is any one thing more than another which the tourist needs to study carefully, it is the character and amount of baggage and the method of transporting it. In the end probably every tourist will have to learn these things from experience, and yet the advice of people who have had the right sort of experience may be worth listening to. Writing of the trans-continental race from New York City to Portland, Ore., made by the two Oldsmobiles, "Old Scout" and "Old Steady," during the summer of 1905, Mr. James W. Abbot speaks to the point as follows:

Tools

Perhaps the worst mistake made on the trip was in carrying on each car a box containing tools and parts. It was a cause of breakage and delay from beginning to end. Concentrating material of small bulk but heavy weight in an enclosure of rigid shape inevitably makes a battering ram which is a constant menace to springs, frame and all connected mechanism. Put a person weighing 150 pounds into an ordinary buggy and its springs rarely yield to any shock. Put a chunk of iron of same weight into the bottom, and we know instinctively what will happen.

Material of that kind is best carried by being divided into several portions, and each portion wrapped in a canvas or jute sack. The various portions should then be distributed as generally as possible, and not concentrated. The elasticity in the wrapping thus acts like a spring.

One of the secrets of making time with any kind of load consists in careful distribution, with regard to equilibrium and reduction of shock. Another mistake was in not carrying at all times sufficient suitable clothing for protection against the severe climate, which may be encountered at any season of the year in a trans-continental trip. All these matters were incidents of hasty preparation and naturally limited storage capacity.

The use of an automobile for distance work on the road—which means getting the most out of it at the least expense of care and muscle, and without injury to the machine—calls for more than a familiarity with routes and road rules—more than a close study of books of instruction in care and management. A good working knowledge, if not, indeed, a fair technical command of the principles of construction individualized in one's favorite machine, is essential to complete self-confidence; and this is to be gained only at the expense of considerable personal application. This sort of acquaintance not only tends to more enjoyment in the course of a tour, but it develops personal enthusiasm as nothing else could do.

Exercise Self Help

One must learn to be his own mechanic as well as his own chauffeur—at times, at least—if he would not be-

The Most Interesting
Touring Territory in
— AMERICA —

Long Island

"Where Cooling Breezes Blow"

Six Hundred Miles of Improved Highways.

Rolling Hills and Shaded Roadways along the Sound.

Beautiful Beaches and easy running beside the Sea.

Quaint Villages and Superb Estates.

In touch with New York City by train, telegraph and telephone.

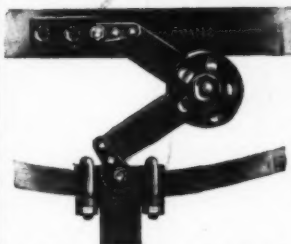
SUMMER HOMES, a booklet describing Hotels and Boarding Houses, postage four cents.

LONG ISLAND, a handsomely illustrated descriptive book, containing also a list of Hotels and Boarding Houses, postage eight cents. Free on application, or mailed on receipt of postage by the General Passenger Agent.

LONG ISLAND RAILROAD

A. L. LANGDON, HOWARD M. SMITH,
Traffic Manager Genl. Pass. Agt.
263 Fifth Avenue, New York

IMPROVED TRUFFAULT-HARTFORD SHOCK ABSORBER



GLIDDEN TOUR VICTORY FOR TRUFFAULT-HARTFORD SHOCK ABSORBERS

As in all the big racing and touring events of the past two years, Truffault-Hartford Shock Absorbers scored a signal victory in the recent Glidden tour of the A. A. A.

Three Pierce Cars, equipped with Hartfords, made perfect scores. An unequalled percentage. So did the Columbia, driven by Barrett.

Of 20 cars using Shock Absorbers, 16 had Hartfords. Another make had two, and two other makes each one.

HARTFORDS WERE EQUIPPED ON THE FOLLOWING CARS IN THE CONTEST:

Pierce White Columbia Locomobile Buick Corbin
Stevens-Duryea Cleveland and Packard

No Broken Springs or Bent Axles and Very Little Trouble on Cars Equipped with the Pioneer Shock Absorber.

HAVE YOU A SET ON YOUR CAR?

Cars Under 1500 lbs., \$40 Cars Over 1500 lbs., \$60
(Four Suspensions) (Four Suspensions)

New Model, Self-Adjusting Needs No Attention After Application
IMMEDIATE DELIVERIES

Postal Brings Booklet
HARTFORD SUSPENSION COMPANY

E. V. HARTFORD, Pres.
Suspensions Applied at 212 W. 88th St.

OFFICE: 67 Vestry St., New York Telephone, 3754 Spring

DID IT EVER OCCUR TO YOU

THAT RAIL TICKETS ARE ACCEPTED
ON D. & B. DAILY LINE STEAMERS?

Under special arrangement with the Michigan Central, Wabash and Grand Trunk Railways, all classes of tickets reading via these lines between Detroit and Buffalo, in either direction, will be accepted for transportation on D. & B. steamers.

Send a two cent stamp for illustrated booklet. Address

D. & B. STEAMBOAT CO.

Dept. A. DETROIT, MICH.

THE CIGARETTE PAR EXCELLENCE

Only the finest selected
Turkish Tobacco used.
Try them and be convinced.



Condax Extra Straw	.35
Condax Extra Cork	.35
Condax Extra Plain	.30
Condax Special Straw	.25
Condax Special Cork	.25
Condax Special Plain	.20

E. A. CONDAX & CO.

305 PEARL STREET, NEW YORK

come at some time or other the unhappy victim of the village blacksmith along the great highway. The hundred-dollar bicycle could stand a few blows on the countryman's anvil, for its construction was comparatively simple and the few essential parts strong for the service required. But hardly so protected the high-priced motor vehicle, whose vital parts are full of mystery to the common bungler. The bicycle finally became nearly "fool-proof;" but the automobile is not now and probably never will be made so.

As a matter of experience, the breakdown rarely comes inside the city limits, with a well-equipped repair shop within walking distance; but almost invariably half way on the road to or from "Nowhere." Unless it be a simple matter, like the repair of a punctured tire, it is usually better to tow the machine back to town if one cannot either do the work himself or direct someone else how to do it. The right sort of knowledge, backed up by the ability to put it into practice in an emergency, means additional comfort and money saved on many a long trip.

Breaking loose from the confinements of winter seems to unloose a pent-up desire to do something out of the ordinary—to surpass previous efforts along the same lines. Hence it is not remarkable that the average man with the new automobile is in a hurry to woo the charms of nature as soon as they are disrobed of their winter garb. There is a more conservative policy, however, which is more nearly sure of satisfying results. This is to wait until summer or early fall before undertaking the more extensive tours. During the latter part of August, and during September and even October, the weather in the northern part of the country is well settled, the roads are generally in good condition and the country possesses a cool radiance in its turning colors and ripened fruitage which are as much or more enjoyable than the impetuous freshness of early spring.

How automobile touring has grown within easy memory is a matter of daily proof, especially to all who live on main-traveled roads in the Eastern and Northern States. There was a time, and that not so very long ago, when the average owner was content to confine the use of his car almost entirely to the city and the nearby country. Long tours were novelties of the adventurous kind, to be taken only after mature consideration of the many points involved, and then with some hesitation.

But to-day a far different program is the rule, and the automobile has become one of the accepted means of transportation. Short tours are not enough; the owner of the motor car has come

into a new confidence and tasted better things, particularly as autos, roads and facilities have all improved. He has learned the rare pleasure to be derived from quick, safe traveling through new scenes, and of triumphing over existing conditions. A consciousness of helping along the era of better roads and of improved facilities for his fellow travelers may lend an added zest to his plans.

One thing is absolutely certain: the day of fixed limits, geographical or otherwise, so far as motoring is concerned, has altogether passed away, never to return. Our highways are coming to their own again, after a partial eclipse during a full generation of railroad building unequaled in history. Road travel was taken from the old stage-coach roads because commerce and merchandise were withdrawn. The roads themselves fell into bad repair and the old inns which had existed at intervals of fifteen or twenty miles, homely but hospitable, were gradually closed until the traveler could get nothing to eat or find a place to sleep. So the steam railroad came and prospered almost to the exclusion of road travel; now the latter is coming back to an equality which seemed scarcely probable even ten years ago.

It is safe to say that the autoist journeying out of beaten paths needs more auxiliaries for himself, his car, and its party than any other user of the highways. The frequency and character of the facilities and accommodations along the way often have an unmeasured influence upon the success and pleasure of a tour. While the influence of the good roads agitation has been more far-reaching than imagined, a new era of routes information has come for the benefit of the tourist, and accurate, readable road signs erected in many localities. The result of all this is an uplift which largely explains the increase in popularity of touring, and in a sense also explains the addition of thousands yearly to the ranks of owners throughout the country.

Long Time Between Polishings

Some years ago there was a somewhat humorous take-off on a well known advertisement which appeared in the pages of the London Punch. The artist, Mr. Harry Furniss, very cleverly drew a picture of a most disreputable tramp sitting, pen in hand, at a table and writing a testimonial to the makers of a popular toilet soap. The tramp wrote in all sincerity, "Three years ago I was induced to use your soap, since then I have used no other." The appearance of the man thoroughly justified his words. The humorous skit was brought to mind lately by receiving a circular about U. S. metal polish paste, and we came to the conclusion that we had seen

a good many metal surfaces, once bright and clean, which were by this time in the tramp's condition. The maker of this polish does not believe that harking back to the days of long ago is the way to treat what are intended to be bright, shiny surfaces. He believes with the poet,

Longfellow, in acting in the living present, and for that purpose he supplies a metal polish paste which wages war upon all kinds of dirt and grime, when they get on a metal surface, and with the U. S. Polish on your side you become a winner in that war. To be more strictly accurate, let us say that in our opinion you don't need to have the metal polish on your side, except in a moral sense; you get the polish on to the metal surface you desire to clean, and on applying what is called "elbow grease," the dirt gives up the unequal struggle and leaves for parts unknown. Write to George William Hoffman, of 295 East Washington street, Indianapolis, Ind., and ask him where the polish ought to be, in his hands or in yours?—on your side or on the metal surface? and we feel sure he will tell you all he knows about the subject, for he has thought it all over carefully.

Harry W. Doherty, the Boston representative of the Aerocar Company, has a way of not only silencing, but convincing those who raise a question about the efficiency of the Aerocar Motor. Recently he had a man who was skeptical about the air-cooling properties of the motor. It was a sweltering hot day; Mr. Doherty promptly removed the fan belt from his big Aerocar, invited his passengers to board and started out from Worcester for Barre. It was about 21 miles over a country where the hills ranged up as high as 18 to 20 per cent. The motor cooled perfectly and acted the same as though the fan had been running.

Percy Owen, manager of the New York branch of the Aerocar Company, recently spent a day at the factory in Detroit. In keeping with his reputation as a hustling salesman, on the return trip he stopped off at Fort Plain, sold a car, caught the next train for New York, and that evening sold another big Aerocar.

Do you often go riding with your husband in his automobile, Mrs. S—?

Not very often. He does not care to have me go along, because I insist that he will always keep near a trolley line.



COVER OF THE BOX.



**The P. T. C.
Power Tire Pump**
Make your engine pump and save
time and labor.
Write for Circular A.
The Pacific Tucking & Mfg. Co.
471-473 Eighteenth St., Brooklyn, N. Y.

Monograms and Name Plates

THE CHANDLER CO., SPRINGFIELD, MASS.

Wholesale	THE	Retail
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1534 Broadway (Times Square), N. Y. City		
Everything for Electrical Ignition		
Sole Agents for B. P. U. Ignition System		
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Accessories and Parts		
Selling Agents for N. Y. for Rushmore Lamps and Searchlights		
Import	If will pay you to inquire Write for Catalog Dept. A. M.	Domestic



Sta-Rite Plugs **STAY RIGHT LONGER** than all others,
because they have Double Porcelains, Non-Short cir-
cuiting air space, self-packing joints. 47 Sizes.
Porcelain, \$1.50. Indestructible Nica, \$1.75
Dynamos, Coils, Timers, etc.
The R. E. Hardy Co., 86 Watts Street, New York City
116 Lake St., Chicago, Ill. E. J. Day & Co., Berkeley, Cal.



AN EXHAUSTED STORAGE BATTERY is as bad as no
battery at all,
when your automobile or motor boat is "stalled"
miles from home. The ma-
chine equipped with an **AP-
PLE BATTERY CHARGER**
has an inexhaustible source
of current. The charger keeps
the batteries full of the kind of
current that is best for igni-
tion purposes. Write to-day
for complete information.
THE DAYTON ELECTRICAL MANUFACTURING CO.
170 St. Clair Street, Dayton, Ohio.

Automobile Tops for all kinds and makes of cars


The "NEVER RUB"
Bow and Top Protectors

Will protect the bows and cloth from rubbing
and wearing

SEND FOR DESCRIPTIVE CIRCULAR

**Springfield Auto Top &
Upholstering Co.**

102-106 Dwight St. Springfield, Mass.



**POCKET
BATTERY AMMETER**
0 to 30 Amperes
In testing single cells, the cord is not
necessary. Accurate.
Price \$3.50
ELDRIDGE ELECTRIC MFG. CO.
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FOR YOUR AUTOMOBILE

Mention The Automobile Magazine when purchasing

Atlantic City

The Resort of

HEALTH PLEASURE FASHION

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New York, via
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LUXURIOUS EQUIPMENT
FAST SERVICE
FOLDER FREE ON APPLICATION

Stations:
West 23d Street, N. R.
Foot Liberty Street, N. R.

C. M. BURT
General Passenger Agent
New York

The White Ambulance

The annexed engraving illustrates an ambulance used by Marine Hospital Corps, Washington Barracks, Washington, D. C.

The chassis is the same as that used in the regular stock touring cars, but is equipped with a longer body to give room for a patient between the boiler, which is under the front seat in the usual position, and the rear of the car. There are folding seats along the sides of the body, compartments for medicine, instruments, and bandage cases within the car, and racks for stretchers on the outside. The machine has given entire satisfaction, and because of its easy running it is es-

frames and running gears, but all the motors will come from the English factory.

The deal is one of the largest ever made in this country. On Wednesday the Decauville Company will assume its new trade name of Wyckoff, Church & Partridge.

To the Public

We desire to inform all manufacturers, dealers and customers that the house of Michelin own and control all patents for the manufacture and sale of the Detachable Rim, which has recently caused so much comment, and which has been used with such great success in the recent French automobile races.



WHITE AUTOMOBILE AMBULANCE USED BY MARINE HOSPITAL CORPS, WASHINGTON BARRACKS, WASHINGTON, D. C.

pecially adapted for ambulance work. This is the third automobile used in the army and navy in the vicinity of the Capitol. The Army Signal Corps have been using a Winton equipped with wireless telegraphy, heliograph, and flag outfits for the past three years, and have recently added a Cadillac single cylinder chassis, provided with a truck body, for the transportation of light apparatus.

It is reported that the Decauville Automobile Company has contracted with the manufacturers of the English Daimler automobile for 200 cars of that make, to be delivered annually in this country for a period of ten years, excepting the first year, when the number will be 100 cars.

The Decauville Automobile Company is given the privilege of building its own bodies in this country, and likewise the

We, as the exclusive American representatives, will handle these rims in the United States, and for your information beg to state that we have been informed that we can expect these rims to be ready and on sale in the course of a few months.

We will issue in due time all information, together with a price list concerning these rims.

MICHELIN PRODUCTS SELLING COMPANY, INC.

The following firms have secured the agency for the Wayne cars in their respective towns: A. Aschaffenburg, New Orleans, La.; Auto & Machine Co., Macon, Ga.; Auto & Motor Boat Co., Houston, Texas; W. H. Artzberger, Allegheny, Pa.; E. L. Benedict & Son, Coin, Ia.; T. V. Campbell, Galena, Kans.; Geo. V. Clough, Galveston, Texas; Dempster Mill Mfg.

Co., Beatrice, Neb.; S. G. Graybill, Elizabethtown, Pa.; C. F. Hayes, Riverton, Ia.; Louis Henne Co., New Braunfels, Texas; Kerberg & Protexter, Sanborn, Ia.; C. Louis, Ogdensburg, N. Y., 19 S. Water St.; V. L. Nettleton & Co., Coldwater, Mich.; A. A. O'Neill & Bro., Norfolk, Va.; Osage Auto Co., Osage, Ia.; C. T. O'Ferrall, Jr., Dillon, S. C.; Sewell Page, Jr., Waverly, Ia.; John Slattery, Scranton, Pa.; C. E. Fitchiner, Binghamton, N. Y.; Webb City Auto Co., Webb City, Mo.; Percy Walker, Wenatchee, Wash.; J. F. Weathers, Columbus, Ga.; Witter & Hoch, Storm Lake, Ia.

The Mercedes Import Company, H. B. Stillman, manager, at 153 North Broad street, Philadelphia, are placing a great number of Mercedes cars in and about Philadelphia. Mr. Stillman is the sole agent in the United States and Canada for Mercedes cars. Inquiries for the German car are very numerous and the call for catalogues from wealthy Philadelphians is very large. During the past three months fifteen Mercedes cars have been placed in Philadelphia by this concern.

One of our friends writes: You need to wear good goggles that will not interfere with your eyesight and yet be comfortable and neat. I have worn goggles in automobiling for seven years and have tried all kinds. With that experience I say without hesitation that The Goggles is the best on the market. It is made by E. B. Meyrowitz, 104 East Twenty-third street, New York.

A new type of W. E. B. spark plug has lately been put on the market by the Arc Spark Manufacturing Company. It is claimed for the new plug that the crepage surface is so peculiarly formed that the porcelain will not be broken by the expansion and contraction due to the variations in the heat of the cylinder head.

The Aerocar Company has just established an agency at Cincinnati, Ohio, Jos. T. Monfort at 227 East Fourth street arranging to look after the trade in the city. Mr. Monfort is the Aerocar agent at Cincinnati and not M. J. Edsell, as has been announced.

The Ford Motor Company, the first American makers to go into the manufacture of sixes on a large scale, abandoning four cylinders in heavy cars, is now reaping the harvest of six-cylinder demand. Six cars a day are being turned out, and the company is still behind in its orders.

TRACTION TREAD TIRES

Ride Without
Tire Worry



**Six Months' Guarantee
Without Reserve.**

If tires wear out or blow out we
give new ones—not excuses.

No other tire company dares to give
such a clean guarantee.

THE RECORD.

2500 tires now running without puncture
or blow-out. On the advance car of the
Glidden Tour—the only car to go through
without tire trouble.

On a ten-horse power runabout on July
29th, Atlantic City to New York, five hours
and forty minutes, 137 miles—record for
any car under 50 H. P.



TRACTION TREAD TIRES

1695 Broadway - Telephone, 816 Columbus - New York



OCEAN HOTEL, ASBURY PARK, N. J.

— OPEN ALL YEAR —

Largest and leading hotel located near the beach, Asbury Avenue Casino
and Wesley Lake

OPEN FIRES AND STEAM HEAT

Under same ownership
and management for thirty years

GEO. L. ATKINS' SONS

N. Y. Motor Club's Economy Test

One of the important coming events is the economy test of the New York Motor Club which is exciting much interest among people who operate automobiles. There is a growing belief that any event undertaken by the New York Motor Club is certain to be well managed and that the achievements of automobiles taking part in any competition will receive proper credit.

A notable feature in connection with the inquiries relative to entries which have been received is the fact that many of the manufacturers of high power cars have signified their intention of entering the contest. Under the rules the decision this year is to be on the basis of the pound mile results, and this gives cars of all classes an even chance. The course is from New York to Albany on August 29; from Albany to Springfield, Mass., on August 30, and from Springfield to New York on August 31. Observers will be carried and the cars will be constantly under observation from the time they are turned over to the committee until the close of the test. The entries close on Saturday, August 25, with A. B. Tucker, secretary of the New York Motor Club.

Ardennes Circuit Race

Foxhall P. Keene and Elliott F. Shepard drove cars in the race over the Ardennes Circuit in Belgium last month, but they did not appear in the list of winners. Races run on the Ardennes Circuit were formerly very popular, but they seem to be losing their attractions outside of France. All the cars entered this year were French except a German team of Mercedes cars. The circuit embraces about 54 miles and the racers go seven times around.

Duray was the winner this year with a De Dietrich car, his time being 4 hours 38 minutes, an average speed of about 65.8 miles an hour. Hanriot was second, driving a Darracq; Rougier was third, Barillier fourth, Gabriel fifth and Clement sixth. The race excited comparatively little interest among European automobilists.

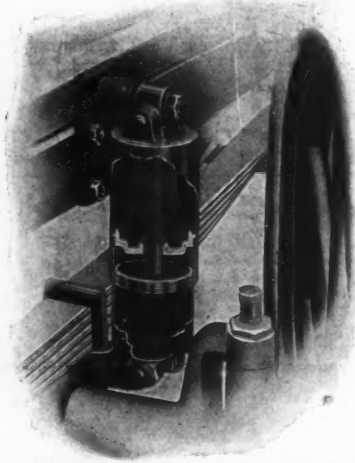
The Deming Trophy

The Deming trophy was won by two competitors, Augustus Post, in a White Steamer, and C. W. Kelsey, in a Maxwell car. Mr. Post very generously relinquished his claim and the trophy went to Mr. Kelsey. It is now on exhibition in the Massachusetts avenue salesrooms of the Maxwell-Briscoe-Boston Company. The car that made the journey of nearly 1,200 miles without a black mark against it, and won the trophy is also on exhibition in the same place. The car was driven from Bretton Woods, where the tour finished, to Boston; the trip was

made in 10½ hours, carrying four passengers, including Messrs. Briscoe, Kelsey, Tyler and Wilcox.

Air-Cushion Device

The annexed illustration shows the Kilgore air-cushion device, made by the Kilgore Automobile Air-Cushion Co., 46 Columbus avenue, Boston, Mass. They use an air-tight phosphor bronze cylinder, with suitable by-passes arranged in the walls to regulate the movement of the air back and forth from one side of the piston to the other. As may be seen in the engraving, the piston is fitted with piston rings. Grooves are milled in the walls of the cylinder; of equal length, but commencing and ending at different points. The groove coming nearest the top is cut ⅞ inch from the under side of the cylinder head, while the groove going the farth-



THE KILGORE AUTOMOBILE AIR CUSHION

est down comes within 1⅞ inches of the bottom of the cylinder.

The piston on good roads plays in a position where all of the grooves are used for the air to pass back and forth, and are of sufficient capacity, so that there is no restraint on the piston, or upon the springs. As the piston moves beyond this normal play, it passes beyond, one, two, three or more of the grooves, thereby contracting the air passage space and acting through the piston on the springs, preventing their too violent play. When the upper or lower groove is covered by the piston, the elastic cushion of air is met, and further motion up or down, as the case may be, is prevented by this elastic air cushion.

The device is a safety appliance for very flexible springs, primarily designed for high-speed automobiles. The manufacturers term the device a "shock-eliminator for automobile uses."

An Apostle of Good Tire

The Healy Leather Tire Co., Healy Bldg., 83-90 Gold street, New York city, is sending Mr. Frank W. Wood for an extended business trip to the Western States, in the interest of their tire. This tire is particularly adapted to the hard usage incident to that country and for long touring trips, and has met with the most gratifying success wherever introduced in such localities. The leather cover protects the carcass of the tire so fully that the repairs are confined entirely to the cover itself, which reduces them to the minimum, and saves the tire itself from the destructive forces which so frequently completely ruin the other tires. The Healy people have one of the largest and best equipped repair shops in the United States, to which Healy tires can be shipped from all parts of the United States and return repaired or with new covers.

Mr. Frank W. Wood will be the representative, and starts immediately, beginning with Chicago, and will include among the points of call Omaha, Denver, Dubuque, Salt Lake City, Spokane, Portland, Seattle, Los Angeles, San Francisco, St. Paul and Minneapolis and other towns. Will be gone from three to four months.

The Pope-Waverley factory, Indianapolis, Ind., has received from their agents, Messrs. S. H. Lewis & Co., Binghamton, N. Y., the particulars of the prominent part the Pope-Waverley Electric played in the annual meeting of the Maita Commandery No. 21, Knights Templars, recently held in that city. It was on the occasion of the retirement of Commander A. W. T. Back, and as a testimonial of the high respect in which he was held by the members of the Commandery, was presented with a Pope-Waverley Electric Chelsea with removable coupe top, one of the handsomest and latest styles of the Pope-Waverley line. The machine was purchased by a subscription which was raised by the members of the Commandery. It was placed on exhibition in front of the Masonic Temple and greatly admired and commented on by all.

Three very serious automobile accidents happened in Greater New York in one week last month, two of them causing death and severe injuries. All of the accidents were due to reckless management and excessive speed. The driver of one of the cars may be indicted for murder. These accidents have excited much indignation among sensible automobilists and the probability is that the local clubs will endeavor to restrain the growing tendency towards excessive speeding of motor cars.



USE COL. SPRAGUE'S AUTO TOPS.

THE SPRAGUE IDEA MADE THE SPRAGUE WAY

COLONEL SPRAGUE'S FOLDING PLATE GLASS FRONT

THIS SHOWS THE INSIDE WITH THE FRONT FOLDED DOWN AND LOCKED. - IT IS HELD SECURELY AND CANNOT RATTLE. - TO FOLD THE FRONT UP, TURN THE LOCKS AND RAISE THE UPPER SECTION AND LOCK IT. - IT GIVES YOU PLENTY OF AIR WHEN FOLDED DOWN - IT PROTECTS YOU FROM THE WIND AND FROM FLIES AND BUGS WHEN FOLDED UP. - IT GOES NICELY WITH A SPRAGUE TOP. - IT CAN BE FITTED TO ANY CAR.

ASK FOR CATALOGUE
THE SPRAGUE UMBRELLA CO.
NORWALK, OHIO.

Lexington Hotel

JUST OFF BROADWAY ON
47th STREET, WEST, AND LONGACRE SQUARE

NEW YORK

OPENED JAN. 1906

**Absolutely
Fireproof**

**Unsurpassed
Apartments**

**324 Rooms with
Private Baths**



HIGH CLASS, UP-TO-DATE HOTEL

\$1.50 PER DAY, AND UP

European Plan

Within Five Minutes' Walk of Eight Theatres

SEND FOR SOUVENIR POSTAL CARDS

GEO. R. JONES & SONS

MOTORING

in the Old Country
'specially Scotland

The Motor World

is Smart, Up to Date and
Profusely Illustrated

Chronicles Every Movement

in the Trade and Sport.
To be well informed on
progress in Scotland,
England, and Ireland
read The Motor World

Annual Subscription \$2.00

HAY, NISBET & CO., Limited
73 Dunlop Street, GLASGOW, SCOTLAND

Steam Ambulance

Director Coplin, of the Department of Public Health and Charities, of Philadelphia, has awarded a contract to the White Sewing Machine Company for a steam-driven machine patterned after similar ones used by the Government. It will have a maximum speed of 35 miles an hour. It will accommodate eight persons and cost \$3,200. When completed a series of tests will be made with the result doubtless that a great increase in the efficiency of the ambulance service will be made in the city, and the overworked horses will disappear from the service.

Penalties

It is difficult for the average automobilist to remember what the penalties are for violations of State laws regulating the operating of power-driven vehicles. The following synopsis of the New Jersey law is easily remembered or it might be well to cut out this item and paste it on your license: For having no horn on a car a fine of \$5; no lights, \$10; having chains on wheels, \$50; for failing to register a machine, \$500; for not stating the full horse power of a machine, \$100; for operating a machine without a license, \$500; for not having license and registration cards when running, \$10; intoxicated chauffeur, \$500; for not having number of car displayed, \$100; for passing another machine on the wrong side, \$25; for racing, \$100; for causing an accident to another machine or exceeding the speed limit, \$100.

The New Jersey automobile license granted to Joseph Brady was revoked on July 14 because he crashed into a buggy at Long Branch. Early the following morning he resisted an officer who was attempting to arrest Robert Dwyer, another chauffeur, whose license has been revoked for this offence. He was held to await the action of the Grand Jury. Brady has now secured counsel to fight the case and it will bring the Freylinghuysen law into the courts. As to Brady, he seems to be the species of reckless driver that would be benefited by a month in the cooler.

The Automobile Club of Asheville, N. C., introduced a benevolent feature in automobiling that is well worthy of imitation. In order to raise money to aid the Asheville free kindergarten they induced the automobilists of the town to give the use of their cars for an afternoon to take people about, a charge of 25 cents being made for each passenger. Quite a sum of money was raised. A large number of people gave the use of their machines for the occasion, among them being Dr. S. W. Battle, Tench

Coxe, Dr. Whittington, Dr. Smathers, Gay Green, Dr. Minor, Dr. Clemenger, Dr. Sawyer, Dr. Fletcher, Eugene Sawyer, Julian Woodcock and Fred Cone.

Largest of Steel Plates

The shell and boilers of the new Cunarder being built at Wallsend, England, are said by Consul Metcalf to be constructed of the largest steel plates in the world. They are Silicon steel, weighing ten tons each. The boilers alone will weigh over 1,000 tons. Massive ingots and slabs weighing twelve and fourteen tons are continually passing through the rolling mills there for this work.

A curious feature of the regulation of automobiles in the city of Philadelphia is that the Committee on Boilers performs the duty of granting licenses to automobiles. At present automobiles must carry numbers for both city and State licenses. Strangers arriving in Philadelphia often have reason to believe that the delays incident to the securing of a license are caused by malice aforethought in the interests of hotel keepers.

Sebewaing is a small town in Michigan which seems to be keenly struck by the automobile fever. There are already several automobiles in the place and a recent report says: Five more automobiles are booked for Sebewaing. C. F. Bach and Supervisor Godfrey Gettel are to purchase touring cars, and H. R. Morris, H. A. Fleigel and W. F. Schmitt will purchase runabouts.

With speedometers it has ever been a question of accuracy, although a number are now on the market that are considered excellent. On the other hand some claim that they can be fixed so as to run above the speed when a car is being shown, while others declare they are accurate when above fifteen miles an hour, but uncertain when going slower.

Andrew Hickenlooper, a prominent business man of Cincinnati, with a party is making an extended tour in his Pope-Toledo car. He toured through Ohio, West Virginia, Pennsylvania, New Jersey, New York and is now viewing the New England States.

The Davenport Automobile Club is a very energetic and enterprising organization, and is doing much to popularize the automobile spirit in that part of the United States.

Benjamin Lukens, Anderson, Ind., an itinerant preacher, of mechanical predilections, has built an automobile which he intends to use on a preaching tour. It is a runabout with a variety of odd features, but it runs, and the maker ex-

pects to make an evangelistic tour of 10,000 miles with the machine before the year ends.

Hartford Shock Absorber

That no vehicle is too heavy to be benefited by the use of Hartford shock absorbers, is proven by the trial they have received on the big sight seeing busses in New York during the past four months. The Manhattan Autocar Company, which has five sight seeing busses running from 42d street, New York, had the Hartford Suspension Company put on shock absorbers, hoping that it would eliminate a lot of the vibration incurred in traveling over the city streets with the big Mack busses, that when loaded, weigh more than five tons each. First one truck was equipped and the suspensions proved so satisfactory that they were applied on all the others and they are now giving great satisfaction; making easier riding for the patrons and saving a lot of wear and tear on the machinery, to say nothing of increasing the speed.

The Electric Vehicle Company has always taken a conservative view of the racing game, and has never manufactured a strictly racing machine. That the regular stock Columbias are speedy cars is evidenced by their recent consecutive winnings at Dead Horse Hill, Readville, Peterson and Washington. Eddie "Cannon" Bald who figured prominently in these successes, has shown excellent form this season and the way he negotiated the difficult turns on the poor track at Hohokus showed that he is one of the cleverest drivers in the country. Eddie says that the company believe that extended long distance work shows up the practical qualities of a stock car better than anything that can be done with it on a circular track, although they admit that the advertising value of track winnings is always worth going after.

Tires enter largely into the cost of maintenance of an automobile, and until Traction Tread Tires were introduced nothing made of rubber or leather had given such universal satisfaction. These are the first American tires ever exported, and are now in use in England, Germany, France, Italy and Spanish America. The traction tread practically removes all possibility of puncture; it does not skid, cannot be cut by ruts, never becomes friction heated. It has positively greater resiliency than the ordinary tire; it gives increased speed under any given motor power, and is equally adapted to light or heavy cars, whether for pleasure or commercial use. The New York office for Traction Tread Tires is at No. 1655 Broadway.

ANOTHER VICTORY FOR THE Jones Speedometer

The Jones Speedometer was awarded the Automobile Club of Great Britain and Ireland's

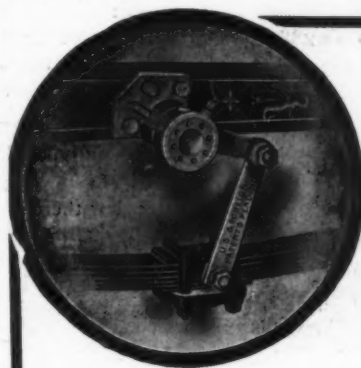
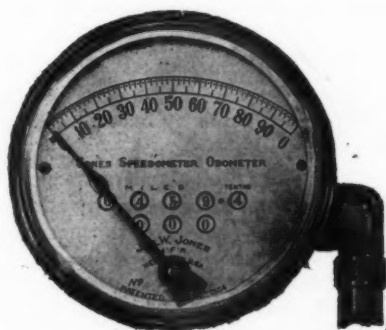
GOLD MEDAL

in their Reliability Contest for reason of its unusual durability and *positive accuracy*. The flawless 2000-mile record well demonstrated its exceptional merit. It was the only instrument in the contest to *score perfectly* and "stand up" through the trials without adjustment.

IN THE GLIDDEN TOUR

more Jones Speedometers were used than all other makes combined. Of the thirteen cars with perfect scores the percentage exceeded that of all other makes. This significant feature again establishes the superiority of the Jones Speedometer over all other speed indicators.

JONES SPEEDOMETER
123 W. 32nd St., N. Y.



In the
Glidden
Tour the
cars equip-
ped with

Diezemann Shock Absorbers were not those that finished with broken springs, broken axles or bursted tires. The Diezemann Shock Absorber insures proper spring control and prevents accidents. It is an improvement over all other forms of shock absorbing devices. The exclusive self-lubricating feature places this appliance in a class by itself.

Diezemann Shock Absorber Co.

1308 Hudson Street, HOBOKEN, N. J.

COMPLETE LISTS

Auto Owners Garages ::::

**DEALERS, JOBBERS
and MANUFACTURERS**

**New Names, Daily, Weekly or
Monthly**

MOTOR DIRECTORIES CO., Inc.

SUCCESSORS TO

AUTO DIRECTORIES CO.

108 Fulton St.,

New York City

'PHONE, 497 JOHN

A Rich Man's Toy

A small motorcar has recently been adopted for the purpose of business by a firm of chimney sweepers in Essex.—Daily Paper.

At last! we have an argument

With which to squash the faddist.
Of all the motor lies that lived

That surely was the maddest:
The "rich man's toy" will now, we trust,

Be branded as a "canard."
Behold! our chimney-sweep has just
Invested in a Panhard.

S. B.

The Buffalo, N. Y., agency for the Aerocar Company, of Detroit, has been placed with C. A. Benjamin, of the Buffalo Automobile Station, 240 West Utica street. Probably there is no better known man in the automobile industry than C. A. Benjamin, who has always been known to his friends as "The original live wire." Mr. Benjamin was for four years general sales manager for the H. H. Franklin Mfg. Co., of Syracuse, an enthusiastic autoist, and a close follower of the air-cooled proposition from its inception. When the Aerocar was first brought out he was quick to recognize its advantageous features, and the news that he has taken up the retail end of the game, as a representative of the Aerocar, in conjunction with his other work as sales manager of the Babcock Electric Company, will be of interest to many, and will show also that the Aerocar Company is not asleep.

A man who borrowed an automobile, with its chauffeur, from a friend, learned a pointed lesson. The car and its driver had a reputation for fast driving, and the borrower found himself a shining mark for the policemen. He was arrested three times the same day, and now is sorry for his borrowing.

A salesman's school is being provided for by the H. H. Franklin Manufacturing Company, of Syracuse. It is intended to give the entire selling force a practical education with regard to the various features of Franklin cars. This will include experience in engine building, testing, and repair departments. After completion of the practical course the men will take up the study of selling methods.

A report comes from Cleveland that a new gas engine, invented by R. H. Palmer, works successfully with crude oil as the power medium. This is one

of the most important of modern inventions, if the reports about it are substantially true.

It's All Changed Now

"Of course, Kandor may be brutally frank, but there's one good thing about him, he doesn't believe in running a man down behind his back." "Oh, that's all changed now. He's bought an automobile, you know."—Philadelphia Press.

The judges in the Los Angeles-Pismo endurance contest, recently held in Southern California, have awarded first honors to the 16 H. P. Maxwell car, entered by W. H. Willcox, of Los Angeles.

THE R. AND P. TRACTION TREAD TIRE AND TUBE CO.

1695 BROADWAY

Telephone 816 Columbus

Aug. 10th, 1906.
NEW YORK,

Angus Sinclair, Editor,

The Automobile Magazine,

136 Liberty Street,

Dear Sir:

While arranging with you to continue our advertisement in The Automobile Magazine, we believe that it is up to us to admit our error in delaying to place our advertisement with you until as late as we did, as the results from our ads which have already appeared have far exceeded even your promised returns and we feel that it is good business to have you continue the advertisement for us.

Please arrange to have your representative call as we desire to change the copy and use new cuts.

Very truly yours,
R. & P. TRACTION TREAD TIRE & TUBE CO.

PER *J. D. Prince*

The car made the best record in regard to the consumption of lubricating oil and gasoline. During the trip of 225 miles but one-half a pint of lubricating oil was used.

An "Anonymous" Letter

A certain clergyman from Virginia has long retained in his employ a colored man by the name of Ezekiel. One morning the master left the house, leaving behind him a letter he had forgotten. Some time in the afternoon he remem-

bered the communication, and, as it was of some importance, he hastened back home, only to find that the letter was nowhere to be seen in his library. He had a distinct recollection that the letter had been left on a table. He summoned Ezekiel and asked if he had seen the letter.

"Yassah, yo' lef' it on yo' table."

"Then where is it now?"

"I mailed it, sah."

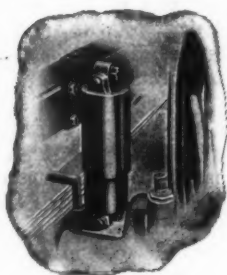
"You mailed it! Why, Zeke, I had not put the name and address on the envelope."

"Jes' so, sah! I thought it was one of dem anonymous letters."—American Spectator.

Does a Cat Wear Feathers?

She was a particular pervert specimen of kindergarten teacher, and counted as a privilege her opportunity to do a little summer work in the slums. Her first lesson, she resolved, should combine the love of our dumb friends with a suggestion for the true observing of things. She began with an engaging but earnest smile.

"Now, children, I want you to tell me what kind of clothes the kitty wears?" Dead silence.



Patent Allowed

TO THE WISE AUTO AGENT

You should know that **Kilgore Air Cushion "Shock Eliminators"** numbers its satisfied users by the thousands.

Kilgore's are classified by all competent mechanics to be the only perfect device for eliminating the **dangers, delays and discomforts brought about by the shock of bad roads.**

NO ADJUSTING NO OILING NO FUSSING

It is wise to attach the best only. It will increase your trade and profit. Our patents allowed, cover all possible methods of **Pneumatic Shock Eliminating.** Send for a package of circulars and get busy.

If you are a hustler who hustles, we want you and you need us.

Kilgore Auto Air Cushion Co., No. 58 Columbus Avenue
BOSTON

**60 H.P.
6-Cylinder
Touring Car**

NAPIER

\$8000

With Top

FIRST SUCCESSFUL MANUFACTURERS OF 6-CYLINDERS

FOUR YEARS' EXPERIENCE

AMERICAN ASSEMBLED. IMPORTED MATERIAL THROUGHOUT

✂ ✂ **RUNABOUTS** ✂ ✂

\$2250.00

NIKE TYPE. 4-CYLINDER, 18-20 H.P.

\$2500.00

Napier Motor Company of America

743 Boylston Street, BOSTON

1610 Broadway, NEW YORK

TOO GOOD TO LOSE FOR TWO

ON receipt of Two Dollars we will send THE AUTO-MOBILE MAGAZINE for one year; also a copy of "HOMAN'S AUTOMOBILE EDUCATOR," price of which is \$2.00. Both are recognized authorities on automobiling.

**AUTO-
MOBILE
PRESS**

136 LIBERTY STREET, NEW YORK

In answering advertisements please mention THE AUTOMOBILE MAGAZINE.

"Why, children, don't you know what kind of clothes the kitty wears?"

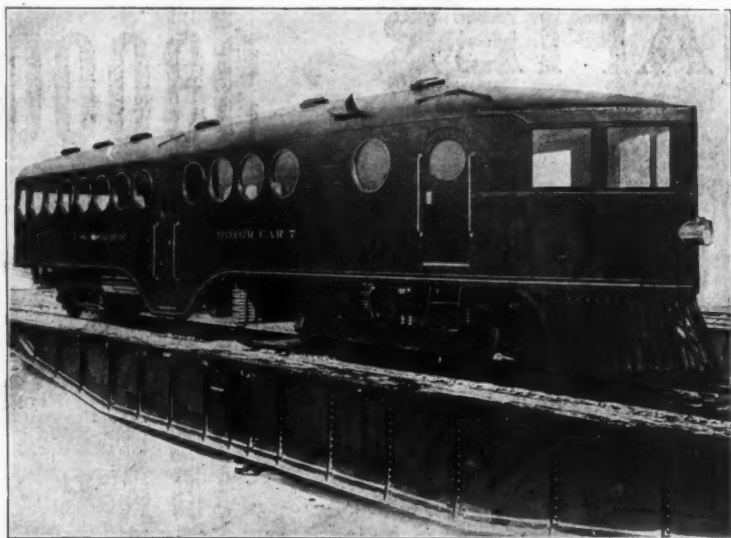
The enthusiastic young woman had not anticipated such unresponsiveness, but nothing daunted by the blank faces before her, she went back to the beginning and tried the gentle art of instilling the right answer into the minds of her pupils by the method of elimination.

"Well, my dears, does the kitty wear feathers?" she asked.

Then a small boy in the front row leaned forward and inquired earnestly, but with a touch of contempt in his voice, "Say, teacher, ain't you never seen a cat?"

Union Pacific Gasolene Passenger Car

The annexed engraving shows the latest development of the gasolene motor car on the Union Pacific Railway.



LATEST UNION PACIFIC GASOLENE MOTOR CAR

That company has paid particular attention to the development of gasolene motor cars for use on branch lines where passenger traffic is light. This car was designed by Mr. W. R. McKeen, Jr., superintendent of motive power for the company, and it has proved, not only very satisfactory as a car carrying its own power, but the service of this and other cars has been exceedingly lucrative.

The matter of giving the branch line patrons of any steam road increased service, with more frequent trips per diem, is very much appreciated by the local community, and their good will is beneficial.

On the hypothesis of the same density of traffic, with the same class of service as would be encountered on one of the ordinary branch lines of the territory west of the Missouri river, the cost per mile for local train service, equipment consisting of two cars and a locomotive,

would be about 24 cents, including repairs, fuel, oil, labor, cleaning, etc.; this for passenger, as well as baggage, mail and express service.

This motor car, representing the direct mechanical drive application of gasolene power, is driven by a six-cylinder reversible gasolene engine, with crank shaft at right angles to the length of car; a sprocket mounted on same, driving a special chain, transmits the power direct to the driving axle through a second sprocket attached to the axle. The chain easily shows a transmission of power with an efficiency of ninety-seven per cent., which clearly demonstrates that this method of transmission is very close to the maximum efficiency possible.

The car framing is a combination of steel shapes and braces, the whole tied together by steel plates, making a unit structure, each part supporting the adja-

cent ones and bearing its proportion of the burden imposed upon it. These cars weigh, motor and all, twenty-six tons, which, of course, is a very material factor in the high speed attained by cars in service, and affords considerable economy in comparison with the heavier steam motor cars, some of which weigh seventy-five tons and over, with the same seating capacity.

The success of these cars has been heralded to every railway in the world, and the indications are that hundreds of them will be in use in the near future.

Automobile omnibuses are to replace the old-fashioned stages on Fifth avenue, New York. A 30 H. P. automobile, similar to those used in London, has arrived from England, and will be tested by the New York Transportation Company. If successful, forty of a similar order will be purchased from a domestic manufacturer.

"That automobiles may kill Toledoans less abruptly," is the wish of Councilman Leroux of that city. He has had a conference with the Mayor, and as a result will introduce in the city council an ordinance requiring all automobiles to be equipped with a sort of "cowcatcher," built of strong nets, fastened on the front of the car low enough so that if a person steps in the way he will be caught up with it. It is not stated whether or not the councilman has ever had to step out of the path of an automobile. If many radical reforms is to be carried out, Toledo is the place to start it.

How to Make Less Vocal Noise

Connie Mack, the noted baseball man, was talking in Philadelphia about the importance of silence.

"No ball player," he said to the group of young men around him, "accomplishes anything by being noisy. If a decision goes against a player, if the umpire is unfair, let him keep quiet. Let him refrain from oaths, shouts, accusations. Noise, in the midst of a game, only damages the ill-treated player's case.

"To impress on my men this doctrine of silence, I often tell them about a married couple.

"The wife, in the middle of the night was awakened by the loud snores of her husband. She endured the horrible racket as long as she could. Then, pinching the man sharply, she said:

"Herbert, you'd make less noise if you kept your mouth shut."

"Herbert, sleepy and surly, muttered: "So would you."

Victor E. Adland, the Chicago agent of the Lambert friction drive automobile, tells of a novel incident he witnessed while visiting the factory at Anderson, Ind., last week. A hurry-up order for ten cultivators was received by a local farm implement firm from a vineyard seven miles from town. There were not enough wagons at hand to haul the cultivators, and a Lambert car was secured, the ten cultivators hitched on, making a string 150 feet long, the driver tooted his horn, and the procession started down street, watched by a big crowd of amazed farmers who had come to town to do their Saturday trading. The vineyard was reached in fifty minutes without the slightest difficulty, although the cultivators weighed 5,500 pounds.

Life-Saving Automobiles

H. P. Maxim, chief engineer of the Electric Vehicle Company, relates the following: "I believe the automobile and the telephone to be the most potent life-saving devices we have at our disposal to-day. In combination they pre-

**1,134 MILES ON SCHEDULE
and NEVER VARIED A MINUTE**



*The Deming
Trophy*

The
"Maxwell"

FOUR CYLINDER CAR

WON THE DEMING TROPHY

WITH A PERFECT SCORE

CHICAGO RELIABILITY RUN, 86 cars started, of which Four were Maxwells, 32 cars finished with perfect scores, **Four of which were Maxwells**

Figure it out yourself—(One MAXWELL driver arrested and fined two points which were rescinded afterward). In the LOS ANGELES - EL PISMO ENDURANCE Contest

FIRST HONORS AWARDED THE MAXWELL

106 cars started; the largest contest ever held in America.

There's a reason for all this. IN CONTEST AS IN CONTENTMENT,

MAXWELLS EXCEL

You will be in debt to your good sense if you don't investigate

Maxwell cars bought now are up-to-date for years to come. Maxwell cars are sold under the positive guarantee that

AS GOOD A CAR CANNOT BE SOLD AT A LOWER PRICE

Write to-day for a catalog to Department of

MAXWELL-BRISCOE MOTOR COMPANY

Tarrytown, N. Y.

Chicago

Pawtucket

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FRED S. AVERY, President

sent advantages in handling cases of sudden sickness that are of untold value. Recently, an aggravated case of uræmic poisoning developed under circumstances that brought me into the case. Convulsions of the most dangerous sort suddenly began at half-past two in the morning. The physician having charge of the case was immediately notified by telephone. He lived approximately two miles distant, but fortunately was the owner of an automobile. At ten minutes to three o'clock he was at the side of the patient administering emergency treatment, or, in just twenty minutes after the convulsions began, and in the dead of night at that. Before the days of the telephone and the motor car this time would have been at least an hour and a half, which in this case would have been fatal. None of the special drugs and devices necessary in the case were available, and it became vitally important to secure them in the shortest possible time. Having my Columbia car at hand, I offered my services, and began a series of trips to a distant drug store. In several cases what was wanted was in the doctor's hands ten minutes from the time he asked for it. Without a motor car none of these things could have been obtained in less than an hour. Thanks to the quickness with which everything was done, the convulsions were controlled and the patient recovered."

The Peril of Speed

Mayor McClellan, of New York, who so narrowly escaped taking the Plymouth-London train that was wrecked in July, was dining in London at the Carlton, says the Newark News.

A number of Americans were in the fashionable restaurant, and they all took coffee together in the foyer after dinner, seated at little tables on the low white balcony, near the orchestra, which affords so fine a view of restaurant and foyer both.

The talk turned to high speed and its perils—the perilous high speed of motor cars, express trains and the like.

Mayor McClellan smiled and said:

"There is, undoubtedly, always something dangerous about speed. When I was a student at Princeton there was a middle-aged cook, a simple-minded woman with a good deal of money saved, who suddenly got herself engaged to a horse jockey.

"I saw the cook standing looking out of her kitchen window with a dazed expression one morning, and I said to her:

"What is the matter, Hannah?"

"Why, sir," she said, "with my husband that is to be, everything goes with such lightnin' speed that it's confusin'. Day before yesterday we got acquainted, yesterday we was engaged, and today I find that he already owes me eighty-five dollars."

It is related of Mark Twain that, while out walking recently, he came across a friend with a new Columbia car, and, at the owner's invitation, stopped to look it over. Its various good points and special conveniences were explained, when Mark drawled out: "What makes the wheels go round?" Immediately the bonnet was raised and foot-boards removed and the genial humorist allowed to inspect the units of transmission from motor to driving shaft. He was apparently well satisfied with the explanation, and the conversation turned to other topics, when he paused abruptly, and, looking quizzically at the forward part of the car, asked: "What makes the front wheels go round?"

Finding Routes

Our Information Bureau is kept busy answering inquiries from intending tourists for the best routes to be followed on certain projected tours. People who are making inquiries of this character would save themselves much trouble if they would secure the official A. A. A. book of tours. This book contains 599 routes, covering 31,467 miles, and ought to be possessed by every automobilist who contemplates going fifty miles from home. It will be sent from this office on receipt of three dollars.

Information has been received that a Wayne car won the two days' endurance test at Los Angeles, Cal. Four Waynes were entered, one making a perfect score, another being taxed one-half a minute for an adjustment, while the two others went through without an adjustment of any sort.

Dull Dogs

If a dog gets in your way, shout at it; blowing the horn is not of much service. Dogs know the human voice, but it will take them a long time to learn the sound of the horn, in fact it will be a new generation of dogs of high and low degree that will become familiar with the horn as they have done with the cyclist's bell.

The Welch Motor Car Company of Detroit have experienced such a pressing demand for their cars that they have had to rent a new building for the purpose of extending the plant. The old factory has been worked 24 hours a day, and yet could not keep up with orders.

Over \$50,000 in license fees have been collected since July 1 in New Jersey. This is quite a sum to take out of the pockets of the automobilists, but there is some consolation in knowing that the bulk of the money will be spent on road

repairs, so that in a large measure the automobilists will share directly in the benefits arising from the expenditure.

The Continental Caoutchouc Co., 43 Warren street, New York, have established an uptown branch at 2100 Broadway, with F. G. Hill manager.

John C. Spiers has been appointed general superintendent of the Corbin Motor Car Co., of New Britain, Conn.

A company has been formed in Geneva, N. Y., for the manufacture and care of automobiles, the incorporators being Alfred G. Lewis, L. G. Hoskins and John W. Mellen.

Howard W. Soule has become sole proprietor of the Passaic Automobile Garage formerly operated by Soule & Pearl.

Mexico has ordered an Atlas three-ton gasoline truck from the Knox Motor Truck Company for use in the Post Office Department in the city of Mexico. The car will have the usual double horizontal cylinder engine, water cooled. The cylinders are 6x7, and will supply 24 H. P.

Definition of Automobile

A Horseless Idea, which makes people go fast and money go faster.

A tide in the affairs of men

Which taken between the Shoulder blade and the Carbstone

Leads on the Hospital.

—Silly Cyclopedia.

Made a Difference

"How far is it to Oconomowoc?" asked the autoist.

"Jest about eight miles more as the crow flies," replied the obliging farmer.

"I know, but if the crow was in an auto how far would it be?"—Milwaukee Sentinel.

He's the Boy

Hotel Clerk—What did the great singer wish?

Bell-Boy—He rang to see if there was any one in the hotel who would run over a few things with him.

Hotel Clerk—Send up a chauffeur.—Harper's Weekly.

When They Rest

"Why do bears sleep through the winter?" asked the boy who is studying natural history.

"Because," answered his father, "the President does not go hunting then. They've got to sleep sometime."—Washington Times.

A tire locked to the rim as is A FISK TIRE

represents a Life Preserving Principle, and Reduces Tire Maintenance to an Economic Basis.

Beads of a wedge shape are applied to a flat rim and held by rings which are rolled on an angle corresponding to that of the bead, so that when drawn down by clamping bolts, the bead acts as an inside cone wedge, with the result that the tire is firmly held to the rim, without air pressure or circumferential contraction.

Such a construction should readily appeal to any discriminating buyer.

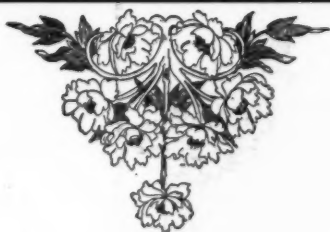
Write for further particulars in printed form.

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Automobile Press
136 LIBERTY ST., NEW YORK

- ¶ It tries by the use of plain language to explain to automobilists the principles of automobile construction.
- ¶ It gives numerous examples of how automobilists were worsted by trifling defects and explains how readily they could have been adjusted.
- ¶ It stands for a square deal between automobilists and other road users.
- ¶ It preaches that the senseless, reckless scorcher is the worst enemy of all who use automobiles for business and pleasure.
- ¶ It is trying to cultivate a sound public sentiment in favor of good roads.
- ¶ It holds that garage owners are as fair and honest as other tradesmen.
- ¶ It gives forth the kind of common sense, practical information good for automobilists to hold in their heads.
- ¶ It has followed the policy of sending the magazine only to the people who pay for it, and it has the largest paid circulation in the automobile field.
- ¶ It goes to the class of people who buy automobiles and automobile accessories.
- ¶ It is therefore an excellent advertising medium.

One Hand Control and Safety

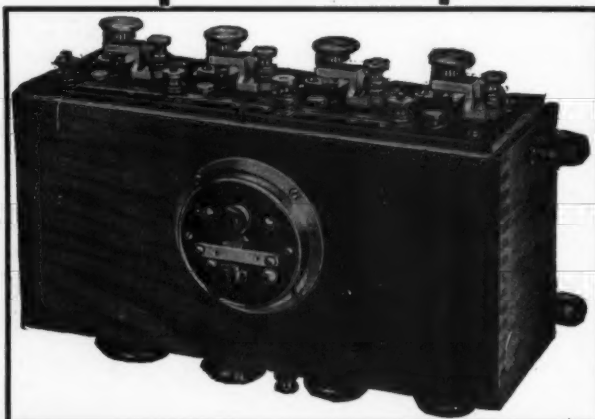
With the **DURYEA** single lever control the car can be slowed down, accelerated or turned **INSTANTANEOUSLY**. With any other arrangement even half a second's time reaching for a lever may mean an accident. **DURYEA** steering connections are all double; there is no chance of accident from a broken steering connection. The **DURYEA** steering pivot gives the same result as an ordinary caster, so that road shocks have absolutely no effect on the steering lever. A front wheel can be driven over a brick at 5 or at 50 miles an hour and the course of the car will not be deflected **in the slightest**, even with the hand off the steering lever, thus absolutely proving perfect steering.

The fastest car in the world (over 2 miles a minute at Ormond) was steered by a lever, NOT by a wheel.

Duryea Power Co., 30 C Street,
Reading, Pa.

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THE PRIZE
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EQUIPPED WITH
OUR COMPLETE
APPARATUS



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MATERIALS
AND
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SAME
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DETAIL AS
A
WATCH

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C. F. Splitdorf, 17-27 Vandewater St., New York, N. Y.

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garage news and
the advocacy of
garage interests an
important feature of

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We wish to have
a correspondent in
every garage in the
country and will
pay liberally for
letters and other
contributions likely
to interest Auto-
mobilists.

GARAGE AND REPAIR STATIONS

ALABAMA.

Birmingham, White-Blakeslee Mfg. Co.
Birmingham, Van Dusen Motor Car Co.
Mobile, Mobile Motor Car Co.

CALIFORNIA.

Los Angeles, Auto Machine & Garage Co., 631 San Pedro St.
Los Angeles, Burke Bros., 485 S. Spring St.
Oakland, Bennet's Auto Garage.
Oakland, S. C. Myers, 513 16th St.
Sacramento, Jos. J. Schmeer, 1009 No. J. St.
San Francisco, Boesch Lamp Co., 1569 Grove St.
San Francisco, Central Bank Auto Garage, 1185 Market St.

COLORADO.

Colorado Springs, Colorado Springs Garage Co.
Colorado Springs, Miller & Wilson Auto Co., 122 N. Cascade Ave.
Denver, Automobile & Repair Co., 1640 Broadway.
Denver, O. Burke, 918 Larimer St.

CONNECTICUT.

Bantam, Bantam Anti-Friction Co. (First-Class Repair Station.)
Bridgeport, Bridgeport Automobile Co.
Bridgeport, T. R. Aston, 1103 State St.
Bridgeport, Park City Auto Station, 625 State St.
Greenwich, Allen Astin & Co.
Hartford, Brown, Thompson & Co., Main St.
Hartford, The Miner Garage Co., Cor. High and Allyn Streets.
New Britain, Corbin Motor Vehicle Co., Myrtle Ave. and High St.
New Haven, D. H. Buell & Co., 516 State St.
Waterbury, H. M. Tyrrell, Jefferson St.
Waterbury, E. H. Towle Co.

DELAWARE.

Wilmington, T. C. Bradford, 311 Market St.
Wilmington, Delaware Auto. Storage and Repair Co.

DISTRICT OF COLUMBIA.

Washington, National Capitol Auto Co., 1120 18th St., N. W.

FLORIDA.

Jacksonville, Clarke Automobile and Launch Co., 18 Ocean St.
Jacksonville, East Coast Auto Co., 18 Ocean St.
Jacksonville, Fred. E. Gilbert, 27 W. Forsyth St.

GEORGIA.

Atlanta, Augusta Garage Co., 51 Broad St.
Savannah, C. H. Leopold, 444 Dayton St.
Savannah, G. W. Thomas, 114 Jefferson St.

ILLINOIS.

Chicago, A. C. Banker Auto Co., 35th St. and Grand Bl'vd.
Chicago, Carpenter & Volkhardt, 2959 Indiana Ave.
Chicago, T. H. Cranston & Co., 58 Wabash Ave.

INDIANA.

Indianapolis, Auto Storage & Repair Co., 23 E. Ohio St.
Indianapolis, Carmon & Fryer, 330 E. Market St.
Muncie, Muncie Auto Garage & Repair Co., 209 E. Adams St.

IOWA.

Cedar Rapids, Cedar Rapids Supply Co., 307 3d Ave.
Des Moines, Iowa Brass & Nov. Works Co., 117 Grand Ave.
East Des Moines, Mason Motor Car Co.

KANSAS.

Topeka, Kenwood Garage, 111 E. 7th St.

KENTUCKY.

Louisville, R. L. Davis, 1003 W. Chestnut St.

MAINE.

Portland, Allen Motor Car Co.
Portland, Congress Sq. Auto Station, 18 Forest Ave.
Portland, Dowling's Garage, 22 Forest Ave., Telephones N. E. 1630, Auto. 1656.
Portland, Maine Motor Carriage Co., Free and South Sts., Telephones N. E. 290, Auto. 2861.
Waterville Motor Co., Waterville, Main St.
Waterville, Central Maine Auto Garage, Charles St.

MARYLAND.

Baltimore, Auto Storage & Repair Co., 1118 Cathedral St.
Baltimore, Balto. Motor Car Co., 327 N. Calvert St.

MASSACHUSETTS.

Brockton, Geo. J. Donahue, 389 Warren Ave., Telephone 92. Charging and accessories.
Lynn, Y. C. Der Bar, Broad St.
Northfield, N. W. Keet.
Pittsfield, Central Automobile Station Co., Renne Ave. & Pearl St., Telephone 161-11.
Pittsfield, Pittsfield Auto Garage, 328 North St., Telephone 15.
Waltham, Watch City Auto Co., Music Hall Ave.
Worcester, Worcester Auto Co., 30 Exchange St.
Worcester, Bean & Hanson, 671 Main St.

MICHIGAN.

Bay City, H. T. Fenner, The Ridotto.
Detroit, Berg & Brehmer, 238 Jefferson Ave.
Detroit, Detroit Automobile Top Co., 265 Jefferson Ave.
Lansing, John Bohnet, 117 Lenawee St., E.
Saginaw, Morris Auto Co., Tilden St. and Genesee Ave.

MINNESOTA.

Minneapolis, Adland Storage & Auto Co., 240 7th Ave. South.
St. Paul, Bird Burney Auto Co., Washington and 5th Sts.

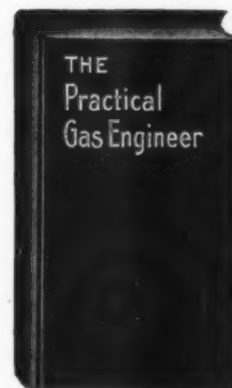
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MISSOURI.
Kansas City, E. P. Moriarty & Co., 1000 Grand Ave.
Kansas City, Day Auto Co., 1407 S. 12th St.
St. Louis, Olive Auto Co., 3970 Olive St.
St. Louis, The Union Garage, 4603 Olive St.

NEBRASKA.

Lincoln, The Wittman Co., 205 S. 11th St.

NEW HAMPSHIRE.

Manchester, Brodie Elec. Co., 42 Pleasant St.

NEW JERSEY.

Asbury Park, C. R. Zacharias.
Atlantic City, Atlantic Automobile Co.
Atlantic City, Columbia Automobile Station.
Bloomfield, Albert Loppacker, Glenwood Ave. and Henry St.
Camden, Reeves Auto Station, 7th and Market Sts.
East Orange, Hollywood Motor Car Co., Opposite Grove St. Sta.
Elizabeth, Elizabeth Auto Co., 14 Westfield Ave.
Englewood, J. W. Van Wart, Palisade Ave.
Englewood, W. P. Varley.
Freehold, Hotel American.
Hackensack, Hackensack Auto Co.
Hackensack, North Jersey Auto & Eng. Co.
Jersey City, Crescent Cycle & Automobile Co., 2565 Hudson Bl'vd.
Jersey City, S. W. J. Kells Mfg. Co., 130 Highland Ave.
Long Branch, W. H. Parker & Co., 148 B'way.
Montclair, Montclair Auto Station Co., Valley Road.
Newark, Newark Garage & Repair Co., Clinton Ave. and Somerset St.
Newark, Motor Car Co. of New Jersey, 291 Halsey St.
Newark, Frank Boland Auto Co., 233 Halsey St.
Newark, Coburn & Beldon, 577 Central Ave.
Newark, Astor Garage, 56 Sherman Ave.
Passaic, Geo. Brown.
Passaic, Passaic Motor Car Co., 147-151 Main Ave.
Passaic, Soule & Pearl, 161 Main Ave.
Paterson, Brown & Schmidt, 199 Paterson St.
Summit, Chester & Henry.
Trenton, Franz Milton Co., 30 W. State St.
Trenton, Walter Richards.

NEW YORK.

Albany, Ernest A. Norris, 335 Central Ave.
Amsterdam, J. L. Peck.
Ballston Springs, Tracy Nicholl Auto Garage.
Bath, Frank Kieckler.
Buffalo, Auto-Car Garage, 77 Edward St. Near Delaware Ave.
Buffalo, Kelsey Co., 42 Niagara St.
Buffalo, Motor Vehicle Garage Co., 1133-1137 Main St.
Buffalo, C. R. Baine, 1535 Seneca St.
Elmira, H. C. Goaser, 122 R. R. Ave.
Ithaca, Fairbanks Grant Mfg. Co., 109 Albany St.
Middletown, C. L. Swezy, 28 James St.
New Rochelle, Deselbrow Motor Car Co.
New York City, American Automobile Storage Co., 36-38-40 W. 60th St.
New York City, American Locomotive Auto Co., B'way and 57th St.
New York City, Archer & Co., 231-233-235 W. 40th St.
New York City, The Autocar, 2182 B'way.
New York City, The Auto Mart, 501 7th Ave.
New York City, Auto Transportation Co., 309 W. 41st St.
New York City, Automobile Arcade, B'way and 49th St.
New York City, Automobile Exchange & Storage Co., 133 W. 38th St.
New York City, Bouton Motor Co., 110 W. 41st St.
New York City, Sidney B. Bowman Auto Co., 52 W. 43d St.
New York City, B'way Automobile Exchange, 515 7th Ave.
New York City, Bronx Auto Garage, 1115 Boston Rd.
New York City, Bryant & Johnson, 120 E. 84th St.
New York City, Chelsea Auto Storage Co., 516 W. 37th St.
New York City, Columbus Auto Exchange & Stor. Co., 312 W. 53d St.
New York City, Commission Automobile Co., 742 7th Ave., Cor. 49th St.
New York City, Continental Auto Co., 168 E. 75th St.
New York City, Electric Cab Co., 238 W. 50th St.
New York City, Callahan, E. B., 228 W. 58th St.
New York City, Harlem Automobile Co., 159 W. 127th St.
New York City, Hol Tan Co., B'way & 56th St.
New York City, Harry S. Hout, 731 7th Ave.
New York City, Lenox Auto Garage, 60 W. 116th St.
New York City, Locomobile Co. of America, B'way and 76th St.
New York City, Majestic Automobile Co., 1709 B'way.
New York City, Mt. Morris Auto Garage, 27 W. 124th St.
New York City, Panhard & Levassor Auto Co., B'way and 62nd St.
New York City, Tuxedo Garage Co., 33-39 E. 58th St.
New York City, Victor Auto Storage Co., 147 W. 55th St.
New York City, White Sewing Machine Co., 42 W. 62nd St.
New York City, Winton Motor Carriage Co., 1706 B'way.
Poughkeepsie, John Van Benschoten, Catherine St.

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Would you like to take
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Rochester, Fred A. Mabbett, 180 Main St., West.
Saratoga Springs, Hodges Auto Garage.
Saratoga Springs, Ketchums Auto Garage.
Syracuse, The Amos-Pierce Auto Co., 109-113 So. State St.
Utica, Utica Motor Car Co., Harry P. Muppy.

NORTH CAROLINA.

Charlotte, L. Barringer, 10 N. Church St.

OHIO.

Akron, Akron Auto Garage Co., 9 W. Buchtel Ave.
Cleveland, Geo. A. Crane & Co., 40 Clara St.
Cleveland, H. S. Moore 160 Crawford Rd.
Cincinnati, Gunther Bros. Co., 1633 Madison Bl'vd.
Cincinnati, Queen City Auto Co., 810 Race St.
Columbus, Capitol City Auto Co., 691 High St.
Dayton, Kiser & Co., 29 E. 2nd St.
Toledo, Toledo Motor Carriage Co., 1012 Madison St.
Youngstown, A. E. Brown, 134 E. Federal St.

OREGON.

Portland, Ballou & Wright, 86 6th St.

PENNSYLVANIA.

Allentown, Harry A. Smith, Church and Court Sts.
Allentown, O. J. Dietrich, N. 10th St.
Allentown, Berwin Auto Co., N. 7th St.
Allegheny, Allegheny Auto Co., 711 Jackson St.
Ambler, D. E. Johnson.
Dalton, Kellogg Mosier & Co.
Doylestown, John J. Donnelly.
Easton, Fischer Auto Storage Co., 219 Ferry St.
Easton, Lon Crane.
Easton, C. F. Hill, 327 Ferry St.
Easton, E. F. Crane, Holland Garage, 200 South 3d St.
E. Downingtown, Griffith & Wollerton.
Erie, Bay State Machine Co., 121 Peach St.
Harrisburg, Central Penn Auto Co., Market St.
Lancaster, Safety Buggy Co., Elizabeth and Plum Aves.
McKeesport, Sam'l Leek, 9th Ave. and Mulberry.
Overbrook, Henry Mackeller.
Philadelphia, Bellevue Stratford Garage.
Philadelphia, 51st St. Auto Station, 51st St. and Beaumont Ave.
Philadelphia, D. L. Mulford, 1801 N. 21st St.
Pittsburg, Auto Traffic Co., 6101 Penna. Ave.
Pittsburg, Atlas Automobile Co., 6235 Penna. Ave.
Pittsburg, A. Engle, 1103 Garson St., S. Side.
Pittsburg, East Liberty Auto Co., 5969 Centre Ave.
Pittsburg, H. S. Townsley, 323 Homeward Ave.
Pittsburg, Hiland Garage, Beatty and Baum Sts.
Pittsburg, Henry Auction Co., 9th St.
Pittsburg, Standard Automobile Co., 5917 Baum St.
Pittsburg, The Homewood Auto Co., 1750 Kelley St.
Pottstown, D. G. Good.
Reading, Chas. A. Miller, 33 Wood St.
Scranton, R. W. Whipple, 529 Spruce St.
Stroudsburg, G. H. Schroeder.
Wilkes-Barre, Wilkes-Barre Auto Co., 23 N. Franklin St.
Wilkes-Barre, Auto Machine & Repair Co., 35 N. Washington St.
Wilkes-Barre, R. Johnson, 12 N. Main St.
York, J. A. Walker.
York, Henry, Millard & Henry, 1059-1069 W. Market St.
York, E. L. Kraft & Co., 241 S. George St.
York, Snyder Cycle and Automobile Co., 231 W. Market St.

RHODE ISLAND.

Narragansett Pier, Church & Caswell.
Newport, N. Y. Auto Repository, Ocean House Stables.
Newport, J. D. Dickson, 113 Bellevue Ave.
Providence, Philip Shaw, Reservoir Ave.

TENNESSEE.

Nashville, Anderson Auto Co., 314 4th Ave. N.
Nashville, B. T. Bell, 166 3d Ave. N.

VERMONT.

Rutland, Clark & Mathews, 161 West St.
White River Junction, Excelsior Carriage Co.

WISCONSIN.

Milwaukee, C. G. Norton & Co., 459 B'way.
Milwaukee, Hein & Casper, 501 B'way.
Milwaukee, Welch-Estberg Co., Seventh and Grand Ave.

DOMINION OF CANADA.

Montreal, Dominion Motor Car Co.
Quebec, Quebec Auto and Launch Co.
Winnipeg, McCulloch & Rosewell, 189 Lombard St.
Winnipeg, Jos. Maw & Co. 280 Williams St.

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American Electrical Novelty Mfg. Co., Spring-Hudson and Vandam Sts., New York City. (Ever Ready.)
Atwater Kent Mfg. Works, 42-46 N. 6th St., Philadelphia, Pa.
Dow Portable Elec. Co., Braintree, Mass.
Eldridge Electric Mfg. Co., 3 Post Office Sq., Springfield, Mass.
Snutsel Auto-supply Co., 1534 B'way, N. Y.

ANTI-SKID DEVICES

Brown, J. C., Mfg. Co., Butler, Ind.
Crone, F. G., 132 Northampton Ave., Buffalo, N. Y.
Dentzeau, Geo., 161 Grand St., N. Y. City, N. Y.
Excelsior Supply Co., 233-237 Randolph St., Chicago, Ill.
Mesinger, H. & F., Mfg. Co., 1801 First Ave., N. Y. City, N. Y.
Snutsel Auto-Supply Co., 1534 B'way, N. Y.
Sunbury Mfg. Co., Sunbury, Ohio.
Weed Chain Tire Grip Co., 28 Moore St., N. Y. City, N. Y.

AUTOMOBILE COVERS

Armbruster, R. H., 309 S. 6th St., Springfield, Ill.
Automobile Cover and Top Mfg. Co., 148 W. 56th St., New York City.
Duane, W. J. & Co., 1771 Broadway, New York City.
Empire Gear and Top Co., 413 N. 2nd St., Phila., Pa.
Excelsior Supply Co., 233-237 Randolph St., Chicago, Ill.
Gilbert Mfg. Co., New Haven, Conn.
National India Rubber Co., Bristol, R. I.
Snutsel Auto-Supply Co., 1534 B'way, N. Y.
Springfield Auto Top and Upholstering Co., 102-106 Dwight Street, Springfield, Mass.
Vehicle Apron and Hood Co., 198 E. Rich St., Columbus, Ohio.
Wiley (The), Wm. H. Co., Box 78, Hartford, Conn.

BASKETS

Burlington Basket Mfg. Co., Burlington, Iowa. (Refrigerator.)
Hall, E. L., 239 E. 27th St., New York City. ("M. & A.")
Heywood Bros. & Wakefield Co., 174 Portland St., Boston, Mass.
Snutsel Auto-Supply Co., 1534 B'way, N. Y.

BELLS (AUTOMOBILE)

Liberty Bell Co., Bristol, Conn. "Liberty" and "Autobell."
Mossberg, Frank Co., Attleboro, Mass.
Post & Lester Co. (The), 20 Sargeant St., Hartford, Conn.
Rosseau Mfg. Co., 310 Mott Ave., N. Y. City. (Electric.)

BRAZING COMPOUNDS

A. & J. Mfg. Co., 26 W. Randolph St., Chicago, Ill. (For cast iron and steel.)
American Ferrofix Brazing Co. (The), 813-a Arcade Bldg., Philadelphia, Pa.
Dixon, Jos. Crucible Co., Jersey City, N. J. (Brazing graphite.)
Excelsior Supply Co., 233-237 Randolph St., Chicago, Ill.
National Cement and Rubber Mfg. Co., 3053-59 Monroe St., Toledo, Ohio. "High Pressure" and "Red Cross."
Standard Brazing Co., 88 Broadway St., Boston, Mass.
Thompson, Chas. A. Co., 39 Cortlandt St., N. Y. City. (Self-fluxing solder.) "Soldierine."
U. S. Brazing Compound Co., 113-115 S. 2d St., New Bedford, Mass.

BUFFETS, PORTABLE

Portable Buffet Co., 145 E. 42d St., N. Y. City.
CAPS (AUTO)
Automobile Equipment Co., 251 Jefferson Ave., Detroit, Mich.
Kibbe & Tomlinson, Batavia, N. Y.
Morawetz Co. (The), 343 Broadway, Milwaukee, Wis.
Pontiac Knitting Co., Pontiac, Mich.
Post & Lester Co. (The), Hartford Conn.
Saks & Co., Broadway, 33d and 34th Sts., N. Y. City.
Scandinavian Fur and Leather Co., 14-16 W. 33d St., New York City.
Shaw, Ora D., 109 Kingston St., Boston, Mass.
Springfield Hat and Cap Co., Springfield, Mass.

CARBIDE

Acetylene Gas Illuminating Co., 105 Walker St., New York City. (Crude and refined.)
Snutsel Auto-Supply Co., 1534 B'way, N. Y.

CARBURETERS

American Coil Co., Foxboro, Mass. (Mixing Valve.)
American Generator Co., N. E. Cor. Park Ave. and 63d St. (Combined tank and carbureters.)
Ardale Motor Car Co., Yonkers, N. Y.
Automobile Supply Co. (The), 1339 Michigan Ave., Chicago, Ill.
Auto. & Power Appliance Co. (The), 357-359 The Arcade, Cleveland, Ohio.
Barker, C. L., Norwalk, Conn. "Barker."
Bowen Motor Co., 92 Baynes St., Buffalo, N. Y. "Phoenix."
Bradford Motor Co., Bradford, Pa. "Longuemare."
Breeze Motor Mfg. Co., 33 Court St., Newark, N. J.
Brennan Motor Co., 101 Grape St., Syracuse, N. Y. "Brennan"

THE INFORMATION BUREAU OF THE AUTOMOBILE MAGAZINE

136 Liberty Street
NEW YORK CITY

UNDERTAKES to give reliable advice concerning every question relating to automobiles. We are constantly in receipt of questions about what make or type of automobile is best adapted for certain conditions of service, and we always give help that is valuable. We also give advice as to methods of overcoming troubles with motor cars of every description. This advice is given free to our readers.

Burt Mfg. Co., 124-130 N. Edwards St., Kalama-200, Mich.
Byrne, Kingston & Co., Kokomo, Ind. "Kingston."
Camden Anchor-Rockland Machine Co., Rockland, Me. "Knox."
Clemick-Hirsch Co., 594 National Ave., Milwaukee, Wis.
Columbus Screw & Mach. Co. (The), 244 Kaiser St., Columbus, Ohio.
Cook Kerosene Carburetor Co., 15-21 Exchange Place, Jersey City, N. J. "Cook Kerosene."
Crouch Motor Co., Stoneham, Mass. "Crouch."
Culver Novelty Co. (The), Culver, Ind.
Curtiss, Geo. H., Mfg. Co., Hammondsport, N. Y.
Dearborn, F. W., 751 Old South Bldg., Boston, Mass.
Dow Portable Electric Co., Braintree, Mass. "Methot."
Dry Gas, The Heath Co., 1623 Broadway, New York City.
Duryea Power Co., N. River and Hockley Sts., Reading, Pa. (Atomizer.)
Essex, G. B. Brass Co., 480 Franklin St., Detroit, Mich.
Fairmount Engineering Co., 3207 Spring Garden St., Philadelphia, Pa.
Funke, A. H., 83 Chambers St., N. Y. City, N. Y. (Motor Cycle.)
Generator Valve Co., 108 Liberty St., N. Y. City, N. Y. (Marine.)
Hatcher Auto-Parts Co. (The), 138 Viaduct, Cleveland, Ohio.
Hewitt Motor Co., 6-10 E. 31st St., N. Y. City, N. Y.
Holley Bros. Co., 661-673 Beaubien St., Detroit, Mich. "Holley."
Hurd & Haggin, 316 Hudson St., N. Y. City, N. Y.
Jager, Chas. J., Co., 166-68 High St., Boston, Mass.
Little & Eastman Co., 595 Harrison Ave., Boston, Mass. "Menn's."
Massick Mfg. Co., 671 Atwater St., Detroit, Mich.
Maxwell & Fitch Co. (The), Rome, N. Y.
Mayo Damper Co., 395 Walnut St., Pottstown, Pa.
Menn's New Auto Mart, Boston, Mass.
Merkel Motor Co., Layton Park, Milwaukee, Wis.
Michigan Motor Co., 246 S. Front St., Grand Rapids, Mich.
Murray, John A., 112 Front St., Brooklyn, N. Y.
North Chicago Machine Co., North Chicago, Ill.
Sherwood Mfg. Co., 1702-12 Elmwood Ave., Buffalo, N. Y.
Shipman Mfg. Co., Sunbury, Pa. "Shipman."
Speed Changing Pulley Co., 750 E. Washington St., Indianapolis, Ind.
Walker, B. F., 57 Golden Hill St., Bridgeport, Conn.
Wheeler, F. H., 937 N. Meridian St., Indianapolis, Ind. "Schubler."
Winkley Co. (The), Box 243, Detroit, Mich. "Garlius."
Wray Pump and Register Co., 191 Mill St., Rochester, N. Y.

CEMENTS

Diamond Rubber Co., Akron, Ohio. "Titan."
Excelsior Supply Co., 233 E. Randolph St., Chicago, Ill.
Fisk Rubber Co., Chicopee Falls, Mass. (Auto and bi.)
Goodrich, B. F., & Co., "Goodrich," Akron, Ohio.
Hartford Rubber Works Co., Hartford, Conn. "Hartford."
Hastings & Anderson, 116 Lake St., Chicago, Ill.
India Rubber Co., 16 Warren St., N. Y. City.
International Automobile and Vehicle Tire Co., Milltown, N. J.
M. & M. Mfg. Co., Akron, Ohio. (And acid curing solutions.)
National Cement and Rubber Mfg. Co., 3053-59 Monroe St., Toledo, Ohio. "Red Cross," "Anchor," "Pioneer," High Pressure. "A. & B."
Noonan Tool and Machine Works, 103-105 Dominick St., Rome, N. Y.
Pneu-Cure Co., 1133 Broadway, N. Y. City. "Pneu-Cure."
The Rath Mfg. Co., 1023-5 N. 3d St., Philadelphia, Pa.
Rubber Goods Repair Co., 89 16th St., Chicago, Ill.
Tingley & Co., Chas. O., Rahway, N. J.
Young, Orlando W., 174-180 Prelinghuysen Ave., Newark, N. I.

CHAINS (AUTOMOBILE)

Baldwin Chain and Mfg. Co., Dept. B., 31 Hermon St., Worcester, Mass. ("Baldwin" Detachable.)
Boston Gear Works, 132 Purchase St., Boston, Mass.
Diamond Chain and Mfg. Co., 241 W. Georgia St., Indianapolis, Ind.
Duryea Power Co., North River and Hockley Sts., Reading, Pa.
Link Belt Engineering Co., Hunting Park Ave. and P. & R. R., Nicetown, Philadelphia, Pa.
Meisel Press and Mfg. Co., 944-948 Dorchester Ave., Boston, Mass.
Morse Chain Co., Trumansburg, N. Y. (Silent Running High Speed.)
Snutsel Auto-Supply Co., 1534 B'way, N. Y.
Whitney Mfg. Co. (The), Hartford, Conn.

CHAIN ADJUSTERS

Aurora Automatic Machinery Co., Aurora, Ill. "Thor."
Clark, A. N., & Son, Plainville, Conn.
Corbin Screw Corporation, New Britain, Conn.
Worcester Pressed Steel Co., Worcester, Mass.

CHAIN CLEANING MATERIALS

Cole, G. W., Co., 143 1/2 Broadway, N. Y. City. ("3-in-1.")
Excelsior Supply Co., 233 E. Randolph St., Chicago, Ill. ("Famous.")

THEY SUPPLY YOUR WANTS

CHAIN GUARDS (AUTOMOBILE)

Automobile Equipment Co., 251 Jefferson Ave., Detroit, Mich.

CIGAR LIGHTER

International Auto. and Yacht Agency, 119-121 Nassau St., N. Y. City. "Radium."
Rochester Auto. Co., Rochester, N. Y.
Snutsel Auto-Supply Co., 1534 B'way, N. Y.

CLEANING COMPOUNDS

Fisk Mfg. Co., Springfield, Mass. (Soap.)
Ford & Dennen, 16 Thayer St., Boston, Mass. (Soap.)

CLOCK HOLDERS

Coleman, H. P., 66 Stanhope St., Boston, Mass.
Post & Lester Co. (The), 20 Sargeant St., Hartford, Conn. (Watch Holders.)

CLOCKS (AUTOMOBILE)

Brown, R. E. Whitney Building, Cleveland, Ohio.
Bullard, J. H., Springfield, Mass. (Speedometer, odometer and clock combined.)
Chelsea Clock Co., 16 State St., Boston, Mass. (Also Boat.)
Excelsior Supply Co., 233-237 Randolph St., Chicago, Ill.
Levy, Manasseh & Co., 182 Broadway, N. Y. City.
Meyrowitz, E. B., 104 E. 23d St., N. Y. City.
Motor Car Equipment Co. (The), 55 Warren St., N. Y. City.
Motor Car Specialty Co., 143 E. State St., Trenton, N. J. (Speed Meter, Odometer and Clock Combined.)
Post & Lester Co., (The), 20 Sargeant St., Hartford, Conn.
The Electric Flash Light Clock.
Wilson, The Auto Clock Co., 935 Arch St., Philadelphia, Pa.

CLOTHING (AUTO)

Automobile Equipment Co., 251 Jefferson Ave., Detroit, Mich. (Rubber Capes.)
Clark Glove Co., Peabody, Mass. (Leggings.)
Excelsior Supply Co., 233-237 Randolph St., Chicago, Ill.
Gilbert Mfg. Co., New Haven, Conn. (Leggings—Sleeve Protectors.)
Laitin, I. and H., 289 Church St., N. Y. City. (Fur Lined Overcoats.)
Mesinger, H. & F., Mfg. Co., 1801-3 1st Ave., New York City. (Leggings.)
Moore-Smith Co., 250 Devonshire St., Boston, Mass. (Fur and Fur Lined Coats.)
Nathan Novelty Mfg. Co., 88-90 Reade St., N. Y. City. (Sleeve Protectors.)
National India Rubber Co., Bristol, R. I. (Rubber Shirt.)
Post and Lester Co. (The), Hartford, Conn. (Leggings.)
Raymond, A. & Co., 129-133 Fulton St., N. Y. City. ("Raymond.")
Rosenthal & Katz, 52 W. 18th St., New York City.
Scandinavian Fur and Leather Co., 14-16 W. 33d St., N. Y. City.
Snutsel Auto-Supply Co., 1534 B'way, N. Y.
Stern Bros., West 23d St., N. Y. City.

COLLAPSIBLE BUCKET

Duplex Folding Pail Co., 114 E. 14th St., N. Y. City.
Durkee, C. D. & Co., 2 South St., N. Y. City.
Goodrich, B. F., Co., Akron, Ohio.

CYLINDER OIL

Allerton Oil and Grease Co., 78 Broad St., N. Y. City, N. Y.
Columbia Lubricants Co., 78 Broad St., N. Y. City, N. Y.
Excelsior Supply Co., 233-237 Randolph St., Chicago, Ill.
Fiske Bros. Refining Co., 59 Water St., N. Y. City.
Harris, A. W., Oil Co., 326 S. Water St., Providence, R. I.
Havemeyer Oil Co. (The), 80 Broad St., N. Y. City, N. Y. "Havoline."
Hawes, Geo. A., 73 Pine St., New York City.
Kellogg, E. H. & Co., 243 South St., N. Y. City, N. Y. (Anti-Corrosive.)
Millers', Wm. P., Sons, 100 Greenpoint Ave., Brooklyn, N. Y.
Munliner, Joseph I. & Co., 204-206 Maiden Lane, N. Y. City, N. Y.
Speare's, The Alden Sons Co., 369 Atlantic Ave., Boston, Mass.
Valvoline Oil Co., 27 State St., Boston, Mass. "Valvoline."
Young, O. W., 180 Freylinghuysen Ave., Newark, N. J.

EMERGENCY CASES

Mamedon Chemical Co., 314 E. 79th St., N. Y. City.
U. S. Emergency Case Co., 11 Weaver Bldg., Utica, N. Y.

ENGINE STARTERS

Auto Improvement Co., The, 304 Hudson St., New York City. "Ever Ready."
Lock Switch Mfg. Co., 20 Broad St., N. Y. City.

FIRE EXTINGUISHERS

Badger, E. B. & Sons Co., 63 Pitts St., Boston, Mass.
Johns-Manville Co., H. W., 100 William St., N. Y. City.
Little Giant Mfg. Co., The, 88 Wall St., N. Y. City. ("Little Giant.")
Rex Fire Extinguisher Co., The, 152 Centre St., N. Y. City. ("Rex.")
U. S. Fire Extinguisher Mfg. Co., 134 W. 23d St., N. Y. City.

COMING EVENTS

Sept. 1-8—Canada International Exhibition, St. John, New Brunswick.

Sept. 2—100-Mile Road Race, on 25-Mile Circuit in Monroe County, N. Y. Rochester Automobile Club and New York State Automobile Association.

Sept. 2—Florio Cup (A. C. of Italy).

Sept. 3—Rochester 100-Mile American Touring Car Derby.

Sept. 3—Race Meet, Muskegon (Mich.) Motorcycle Club.

Sept. 3—Auvergne Cup Race, France.

Sept. 10—Motor Boat Meeting at Arcachon.

Sept. 10-15—Third-of-a-litre Criterion.

Sept. 15-16—Mont Ventoux Hill Climb.

Sept. 16—Juvisy (France) Motor Boat Meeting.

Sept. 18—Provence Motor Car Meeting (A. C. of Solon).

Sept. 22—American Elimination Trials for Vanderbilt Cup Race (Long Island Course Probable).

Sept. 23—Semmering Hill Climb (A. C. of Austria).

Sept. 27—Tourist Trophy Race, Isle of Man, A. C. of Great Britain.

Oct. 1-2—St. Louis, Mo., Automobile Parade and Carnival, St. Louis Automobile Club.

Oct. 5-14—Leipzig (Germany) Exhibition, Kryptall Palast.

Oct. 6—Vanderbilt Cup Race American Automobile Association.

Oct. 7—Chateau-Thierry Hill Climb.

Oct. 14—Maisons-Lafitte Motor Boat Race.

Oct. 21—Kilometer Trials for Motor Cars.

Oct. 28—Gaillon (France) Hill Climb.

Nov. 1—New Zealand International Exhibition opens at Christchurch.

Nov. 1-16—Berlin (Germany) Automobile Exhibition.

Nov. 15-24—London Olympia Motor Show.

Nov. 23-Dec. 1—London, Stanley Show, Agricultural Hall.

Dec. 1-8—The Automobile Club of America and the American Motor Car Manufacturers' Association Automobile Show, Grand Central Palace, New York.

Dec. 7-24—Paris Automobile Salon.

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GOGGLES AND MASKS

Excelsior Supply Co., 233-237 Randolph St., Chicago, Ill.
Funke, A. H., 83 Chambers St., N. Y. City.
Globe Optical Co., 403 Washington St., Boston, Mass.
Meyrowitz, E. B., 104 E. 23d St., N. Y. City.
Mills Mfg. Co., The, 10 E. 23d St., N. Y. City.
Rubay, Leon, 140 W. 38th St., N. Y.
Scandinavian Fur & Leather Co., 14-16 W. 33d St., N. Y. City.
Snutsel Auto-Supply Co., 1534 B'way, N. Y.

GRAPHITE

Jos. Dixon Crucible Co., Jersey City, N. J. "Dixon" "L. A. W.," "No. 635," "Auto and Bi," "Graphi-oel."

GREASES

Allerton Oil & Grease Co., 78 Broad St., N. Y. City.
Columbia Lubricants Co. of N. Y., 78 Broad St., N. Y. City. "Monogram and Initial."
Fiske Bros. Refining Co., 59 Water St., N. Y. City. "Lubroleine."
Harris, A. W. Oil Co., 326 S. Water St., Providence R. I. Auto.
Kellogg, E. H. & Co., 243-244 South St., N. Y. City. "Anti-friction," "Excelsior."
Rubay, Leon, 140 W. 38th St., N. Y.
Speare's, The Alden Sons Co., 369 Atlantic Ave., Boston, Mass.
Vacuum Oil Co., 29 Broadway, N. Y. City.

HORNS (AUTOMOBILE)

Automobile Supply Mfg. Co., 320 Driggs Ave., Brooklyn, N. Y.
Exhaust Horn, New Jersey Tube Co., Newark, N. J.
Funke, A. H., 83 Chambers St., New York City.
Gabriel Horn Mfg. Co., 970-72 Hamilton St., Cleveland, Ohio.
Gleason-Peters Air Pump Co., 20 W. Houston St., New York City.
Goodrich, B. F., Akron, Ohio.
Hutchinson Electric Horn Co., Suite 9033, No. 1 Madison Ave., N. Y. City.
Motor Car Equipment Co., The, 55 Warren St., New York City.
New York Coach and Auto Lamp Co., 798 10th Ave., New York City.
Riley & Klotz, 17-19 Mulberry St., Newark, N. J.
Rubay, Leon, 140 W. 38th St., N. Y.
Snutsel Auto Supply Co., 1534 B'way, N. Y.
Twentieth Century Mfg. Co., 19 Warren St., N. Y. City. "Twentieth Century."
Willis, E. J. Co., 10 Park Place, New York City.

HOUSES (AUTOMOBILE)

C. & A. Patented Building Construction Co., 170 Broadway, N. Y. City.
Premier Mfg. Works, St. John, Mich.
Smith, H. W., Room 1512, No 66 Broadway, N. Y. City.
Springfield Moulding Works, 58 Waltham Ave., Springfield, Mass.

IGNITION BATTERIES

American Electrical Novelty & Mfg. Co., Springfield, Mass.
Hudson and Vandam Sts., N. Y. City. (Ever Ready.)
Dayton Electrical Mfg. Co., The, 609-12 Reibold Bldg., Dayton, Ohio. (Apple-Duplex.)
Dayton Mfg. Co., Dayton, Ohio.
Dow Portable Electric Co., Braintree, Mass.
Eastern Carbon Works, West Side Ave. and Central R. R., Jersey City, N. J.
Edison Storage Battery Co., Glen Ridge, N. J.
Electric Contract Co., 202-4 Centre St., N. Y. City.
Empire State Dry Battery Co., 70 Fulton St., N. Y. City.
Gould Storage Battery Co., 1 West 34th St., N. Y. City. "Gould."
Hutchinson Electric Horn Co., Suite 9033, No. 1 Madison Ave., New York, N. Y.
National Battery Co., 368-382 Massachusetts Ave., Buffalo, N. Y. "Sperry."
National Carbon Co., W. Madison and Highland Ave., Cleveland Ohio. "Columbia."
New England Motor Co., 82 Fletcher St., Lowell, Mass.
Nungesser Electric Battery Co., 27-33 King St., Cleveland, Ohio.
Pittsfield Spark Coil Co., Pittsfield, Mass.
Roche, Wm., Dry Battery Co., 52-54 Park Pl., New York City.
Royal Battery Co., 143 Chambers St., N. Y. City. (National Sales Corporation, 256 Broadway, N. Y. Factory Sales Mgr.) "Geecee."
Rubay, Leon, 140 W. 38th St., N. Y. City.
Snutsel Auto-Supply Co., 1534 B'way, N. Y. City.
United Electrical Mfg. Co., 53 Vesey St., N. Y. City. "Crescent."
Willard Storage Battery Co., 29 Academy St., Cleveland, Ohio.
Witherbee Ignitor Co., 541 N. 43d St., N. Y. City.

IMPORTERS (AUTO GOODS)

Angiulli, Luigi, 180-182 Centre St., New York City. (Angelus Lamps.)
Champion, Albert Co., 541 Tremont St., Boston, Mass. (Spark plugs, spark coils, storage batteries, limousine electric lights, ignition wire, magnetos, oilers, ammeters, voltmeters and siren whistles.)
Cooper, C. W. Co., 3 Appleton St., Boston, Mass.
Dac Automobile Supply House, 1739 Broadway, New York City.
Excelsior Supply Co., 233-237 Randolph St., Chicago, Ill.
Heiler, Joseph S., 123 W. 52d St., New York City. ("Pipe" cars; "Simms" safety buffer.)
Hers & Co., 189 Elm St., New York City. (French coils and storage batteries.)

THEY SUPPLY YOUR WANTS

Holcombe & Co., 45 Vesey St., New York City, (Spark plugs.)
 Manufacturers' Agency Co., 1679 Broadway, New York City. (Automobile parts.)
 Miller, Chas. E., 97-101 Reade St., N. Y. City. (Auto parts and supplies.) (Auto jewelry and horns.)
 Motor Car Equipment Co., 55 Warren St., N. Y. City. (Accessories and supplies.)
 Napier Motor Co. of America, 743 Boylston St., Boston, Mass. (Napier motor cars, launches, motors and transmissions.)
 National Automobile Co., 205-9 E. 86th St., New York City. (Mercedes parts.)
 N. Y. Sporting Goods Co., 17 Warren St., N. Y. City.
 Post & Lester Co., The, 20 Sargeant St., Hartford, Conn. (Horns, lamps, ammeters, spark plugs, voltmeters, spark coils, and goggles.)
 Rubay, Leon, 140 W. 38th St., New York City. (Continental and Michelin tires, auto horns, La Coste ignition apparatus.)
 Smith & Mabley, Inc., Broadway, between 56th and 57th Sts., New York City. (Billy lamps, "Panhard," "Renault" and "Mercedes" Cars, "Hercules" anti-skid tires.)
 Sautsel Auto-Supply Co., 1534 B'way, N. Y. City
 Stallforth, G. & Co., 396-398 Broadway, New York City. (Spark plugs; mica cores.)
 Sussfeld, Lorsch & Co., 37 Maiden Lane, New York City. (Miscellaneous French auto supplies.)

INSURANCE (AUTO)

Aetna, Hartford, Conn.
 Tobin, Joshua F., 500 Fifth Ave., New York City.
 Travelers', Hartford, Conn.

JACKS

Auto Bed Co., The, 36 Columbus Ave., Boston, Mass. "Autobed."
 Buckeye Jack Mfg. Co., The, Louisville, Ohio.
 Duff Mfg. Co., Westinghouse Bldg., Pittsburg, Pa. "Barrett."
 Hardy, The R. E. Co., 225 W. Broadway, N. Y. City.
 Jersey Brake Co., 56 Columbia St., Newark, N. J. "Searls."
 Pope Mfg. Co., Hartford, Conn. "Kenosha."
 Roth Jack and Tool Co., 68 William St., Room 508 New York City.
 Rubay, Leon, 140 W. 38th St., New York City.
 Wray Pump and Register Co., 191 Mill St., Rochester, N. Y.

JUVENILE FOOT AND HAND PROPELLED VEHICLES

Toledo Metal Wheel Co., Toledo, Ohio.

LAMPS (AUTOMOBILE)

American Lamp Co., 83-85 Randolph St., Detroit, Mich.
 American Lamp Works, 66 W. 43d St., N. Y. City.
 Angiulli, Luigi, 180-182 Centre St., New York City.
 Atwood Mfg. Co., Amesbury, Mass.
 Badger Brass Mfg. Co., The, Kenosha Wis. "Solar."
 Boesch Lamp Co., 1569 Grove St., San Francisco, Cal.
 Dayton Electrical Mfg. Co., The, 600-612 Reibold Bldg., Dayton, Ohio. (Combined lighting and igniting outfits.)
 Dietz, R. E. Co., New York.
 Edmunds & Jones Mfg. Co., 313-315 Riopelle St., Detroit, Mich.
 Elbridge Electrical Mfg. Co., Elbridge, N. Y.
 Funke, A. H., 83 Chambers Street, N. Y.
 General Electric Co., Schenectady, N. Y.
 Gray & Davis, Amesbury, Mass.
 Gray, Peter & Sons, 88-90 Union St., Boston, Mass.
 Ham, C. T. Mfg. Co., Rochester N. Y. "Ham," "Cold Blast."
 Hine-Watt Mfg. Co., 69 Wabash Ave., Chicago, Ill.
 Motor Car Equipment Co., The, 55 Warren St., New York City.
 New York Coach and Auto Lamp Co., 798 10th Ave., New York City.
 Post & Lester Co., The, 20 Sargeant St., Hartford, Conn.
 Rose Mfg. Co., 910 Arch St., Philadelphia, Pa. "Neverout."
 Rubay, Leon, 140 W. 38th St., New York City.
 Scoville & Peck Co., 15 Wooster St., New Haven, Conn. "Peck."
 Sautsel Auto-Supply Co., 1534 B'way, N. Y. City.
 Twentieth Century Mfg. Co., 19 Warren St., New York City. "Twentieth Century."

LICENSE TAGS

Automobile Equipment Co., 251 Jefferson Ave., Detroit, Mich.
 Boyle, John & Co., 112-114 Duane St., New York City. (And lamp numbers.)
 Dentzeau, Geo., 161 Grand St., New York City.
 Lighthouse, Chas. F. & Co., 1769 Broadway, New York City.
 McKinnon Dash Co., Amherst St., Buffalo, N. Y.
 Mesinger, H. & F. Mfg. Co., 1801 First Ave., New York City.
 Post & Lester Co., The, Hartford, Conn.

LOCK SWITCHES

Lock Switch Co., 30 Broad St., New York City.
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Bullard, J. H., Springfield, Mass. (Speedometer odometer and clock combined.)
 Jones, Jos. W., 127 W. 32d St., N. Y. City. ("Jones.")
 Loring, E. J., Somerville, Mass. (Combined speedometers and odometers.)
 Motor Car Specialty Co., 143 E. State St., Trenton, N. J. (Combination speed meter, odometer and clock.)
 Rollins Mfg. Co., Park Sq. Motor Mart, Boston, Mass. (Combined speedometers and odometers.)
 Smith, R. H. Mfg. Co., Springfield, Mass. (Combined speedometer and odometer.)
 Veeder Mfg. Co., Sargeant and Garden Sts., Hartford, Conn. ("Veeder.")
 Warner Instrument Co. (Auto-Meter), Beloit, Wis.
 Wood Speedometer Co., 106 Sudbury St., Boston, Mass.

OILS

(See also Cylinder Oil.)

Allerton Oil and Grease Co., 78 Broad St., New York City.
 Borne-Scrymser Co., 135 Front St., New York City. "Colonial."
 Columbia Lubricants Co., 78 Broad St., N. Y. City.
 Cook's, Adam, Sons, 313 West St., New York City.
 Harris, A. W., Oil Co., 326 S. Water St., Providence, R. I.
 Hawes, Geo. A., 73 Pine St., New York City.
 Kellogg, E. H., & Co., 243-244 South St., N. Y. City.
 Rubay, Leon, 140 W. 38th St., New York City.
 Speare's, The Alden, Sons Co., 369 Atlantic Ave., Boston, Mass.
 Vacuum Oil Co., 29 Broadway, New York City.
 White & Bagley Co., Worcester, Mass. "Oilsum."
 Young, O. W., 180 Freylinghuysen Ave., Newark, N. J.

POLISHES (METAL)

Armstrong & Co., Kalamazoo, Mich. ("Monarch.")
 Cole, G. W., Co., 143 Broadway, New York City. ("R. K." and "3 in 1.")
 Columbia Lubricants Co., of N. Y., 78 Broad St., New York City.
 Edmonds, J., Wenley & Son, 216 Franklin St., New York City. (Electric.)
 National Cement and Rubber Mfg. Co., 3053-59 Monroe St., Toledo, Ohio.
 Newbern, The, S. C. Co., 505 Quarry St., Phila., Pa.
 New Jersey Paint Works, Jersey City, N. J.
 Raimes & Co., 50 Ferry St., New York City.

PUMPS (AUTOMOBILE TIRE)

Bridgeport Brass Co., 253 Broadway, N. Y. City.
 Cleveland Faucet Co., Cleveland, Ohio.
 Gleason-Peters Air Pump Co., 30 W. Houston St., New York City.
 Post & Lester Co., 20 Sargeant St., Hartford Conn.
 R. & C. Indicator Co., Bridgeport, Conn.
 Rubay, Leon, 140 W. 38th St., New York City.
 Skinner & Skinner, 4133 Indiana Ave., Chicago, Ill.
 Spacke, F. W. Machine Co., Indianapolis, Ind.
 Tiley Pratt Co., Essex, Conn.
 Ultra Pump and Power Co., Auburn, N. Y.
 Wray Pump & Register Co., 191 Mill St., Rochester, N. Y.

RAIN APRONS

Boyle, John W. & Co., 112-114 Duane St., N. Y. City.
 Gilbert Mfg. Co., New Haven, Conn.
 Indianapolis Dash Co., Indianapolis, Ind.
 Nathan Novelty Mfg. Co., 88-90 Reade St., New York City. (Rain and dust aprons.)
 Perfection, The Storm Shield Co., S. Main St., Clyde, Ohio.
 Springfield Auto. Top and Upholstering Co., 102-106 Dwight St., Springfield, Mass.

SCHOOLS

Manhattan Automobile School, 315-21 W. 96th St., New York City.
 New York School of Automobile Engineers, 146 W. 56th St., New York City.

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 Broadway Auto. Exchange, Inc., 513-15 7th Ave., New York City.
 Inter-State Auto. Touring Co., 5 E. 43d St., New York City.
 Manhattan Storage Co., 42-44 Cortlandt St., New York City.
 Manufacturers' Motor Car Co., 54-56 W. 43d St., York City.
 Times Square Auto Co., 164 W. 46th St. N. Y. City.

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 Diezemann Shock Absorber Co., 1311 Hudson St., Hoboken, N. J.
 Gabriel Horn Mfg. Co., 970-972 Hamilton St., Cleveland, Ohio. "Foster."
 Godchalk, E. H. & Co., 23d and Hamilton Sts., Philadelphia, Pa.
 Graham Co., The, 84 Waumbeck St., Boston, Mass.
 Hartford Suspension Co., 67 Vestry St., N. Y. City.
 Indianapolis Bolster Spring Co., Indianapolis, Ind. "Victor."
 Kelsey Suspension Co., Tarrytown, N. Y.
 Kilgore Auto. Air Cushion Co., 46 Columbus Ave., Boston, Mass. "Kilgore."
 Sheddan Mfg. Co., The, 138 W. Fayette St., Baltimore, Md.
 Supplementary Spiral Spring Co., The, 4524-4568 Delmar Ave., St. Louis, Mo.

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 Goodson Electric Ignition Co., 94 Point St., Providence, R. I. (Also primary "Goodson.")
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 Heinze Electric Co., Lowell, Mass.
 McKibbin Mfg. Co., S. Norwalk, Conn.
 Mosler, A. R. & Co., 1679 Broadway, New York City.
 National Carbon Co., W. Madison and Highland Ave., Cleveland, Ohio. "National."
 National Coil Co., 115-117 Michigan Ave., Lansing, Mich.
 Never-Miss Spark Plug Co., Lansing, Mich.
 New York Coil Co., 338 Pearl St., New York City.
 Noxon, C. F., 500 E. Water St., Syracuse, N. Y.
 Ohio Electric Works, 76-78 Ellen St., Cleveland, O.
 Pittsfield Spark Coil Co., Pittsfield, Mass.
 Roche, Wm., Dry Battery Co., 52-54 Park Place, New York City.
 Rogers, Geo. D., Automobile Parts Mfg. Co., 56 Kinsman St., Cleveland, Ohio.
 Rubay, Leon, 140 W. 38th St., N. Y. City. (Lacoste.)
 Schug Electric Mfg. Co., Champlain and Beaubien Sts., Detroit, Mich.
 Seidler-Miner Electric Co., 207-211 Jefferson Ave., Detroit, Mich.
 Snutsel Auto-Supply Co., 1534 B'way, New York City.
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 Williams, E. Q., 535 S. Clinton St., Syracuse, N. Y.

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 Hardy, R. E. Co., 225 W. Broadway, N. Y. City.
 Hatcher Auto-Parts Co., The, 138 Viaduct, Cleveland, Ohio.
 Herz & Co., 189 Elm St., N. Y. City. Bougie "Herz."
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 Kokomo Electric Co., The, Kokomo, Ind.
 Lipman, Carl E. L., Beloit, Wis. "Billy Hell."
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 Mayo Dampier Co., 355 Walnut St., Pottstown, Pa.
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 Mosler, A. R. & Co., 1679 Broadway, New York City.
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 Never-Miss Spark Plug Co., Lansing, Mich. "Never Miss."
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 Post & Lester Co., The, 20 Sargeant St., Hartford, Conn.
 Rajah Auto-Supply Co., 140 Washington St., New York City.
 Richards, F. H., 15 Murray St., New York City.
 Richardson Engineering Co., 36 Pearl St., Hartford, Conn.
 Roche, Wm., Dry Battery Co., 52-54 Park Place, New York City.
 Rubay, Leon, 140 W. 38th St., New York City.
 Seidler-Miner Electric Co., 207-211 Jefferson Ave., Detroit, Mich. "S. M."
 Snutsel Auto-Supply Co., 1534 B'way, N. Y. City.
 Splittdorf, C. F., 23 Vandewater St., New York City.

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 Rollins Mfg. Co., Park Square Motor Mart, Boston, Mass. (Combined speedometers and odometers.)
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 Smith, R. H. Mfg. Co., Springfield, Mass. (Also speedometer and odometer, combined.)
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 American Wood Tire Co., 911 Monadnock Building, Chicago, Ill. (Wood.)
 Bailey, C. J., & Co., 22 Boylston St., Boston, Mass. (Licensors.) "Bailey Wont Slip."
 Broadway Rubber Tire Co., 253 W. 47th St., New York City.
 Brown, Will H., Lennox Bldg., Cleveland, Ohio.
 Consolidated Rubber Tire Co., 40 Wall St., New York City. "Kelly-Springfield."
 Continental Caoutchouc Co., 43 Warren St., New York City. "Continental."
 Continental Rubber Works, Erie, Pa.
 Cooper, Dr. T. J., 114 Water St., Paterson, N. J.
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Orchid lovers have for many years been watching for the rediscovery of Fairie's lady's slipper orchid, says the Garden Magazine. They wanted it, not merely because it had been utterly lost to cultivation, but because it was the parent of many of the most beautiful hybrids we have.

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 In that last car of his.
 Likewise himself, and now he knows
 What real scorching is.

—The Bohemian for June.

Take warning auto driver—thou
 With visage black and grim,
 He made it hot for us, and now
 They make it hot for him!

—J. K.



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AT

Ardennes, Belgium, Aug. 13, 1906

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Hanriot	-	-	-	" 2nd "	-	-	on MICHELIN TIRES
Rougier	-	-	-	" 3rd "	-	-	on MICHELIN TIRES
Barillier	-	-	-	" 4th "	-	-	on MICHELIN TIRES
Gabriel	-	-	-	" 5th "	-	-	on MICHELIN TIRES

AN UNHEARD OF ACHIEVEMENT

AT THE SAME PLACE

A team of four of the same cars, all equipped with MICHELIN TIRES, all finish among the winners and in the following order:

1st, Duray. 3rd, Rougier. 5th, Gabriel. 7th, Sorel

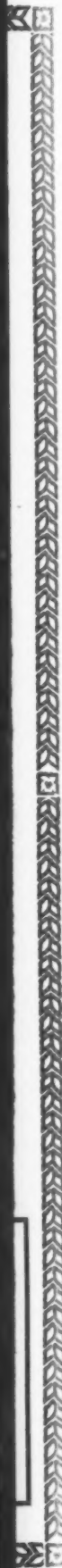
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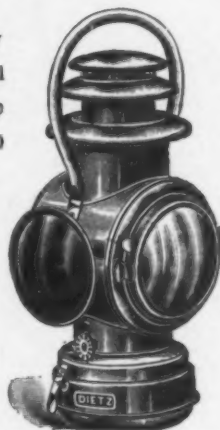
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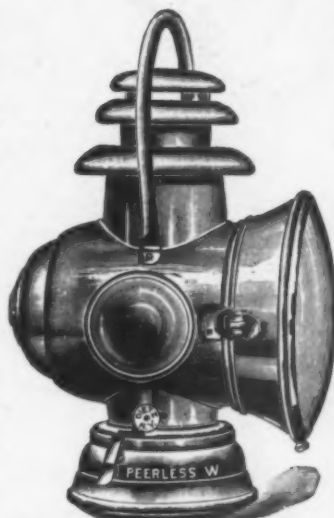


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goes
out is a
danger
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BUT THIS IS WHAT I CAN DO:

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VOL. IX. No. 3

THE

SEPTEMBER, 1906

AUTOMOBILE MAGAZINE

Published by THE AUTOMOBILE PRESS
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